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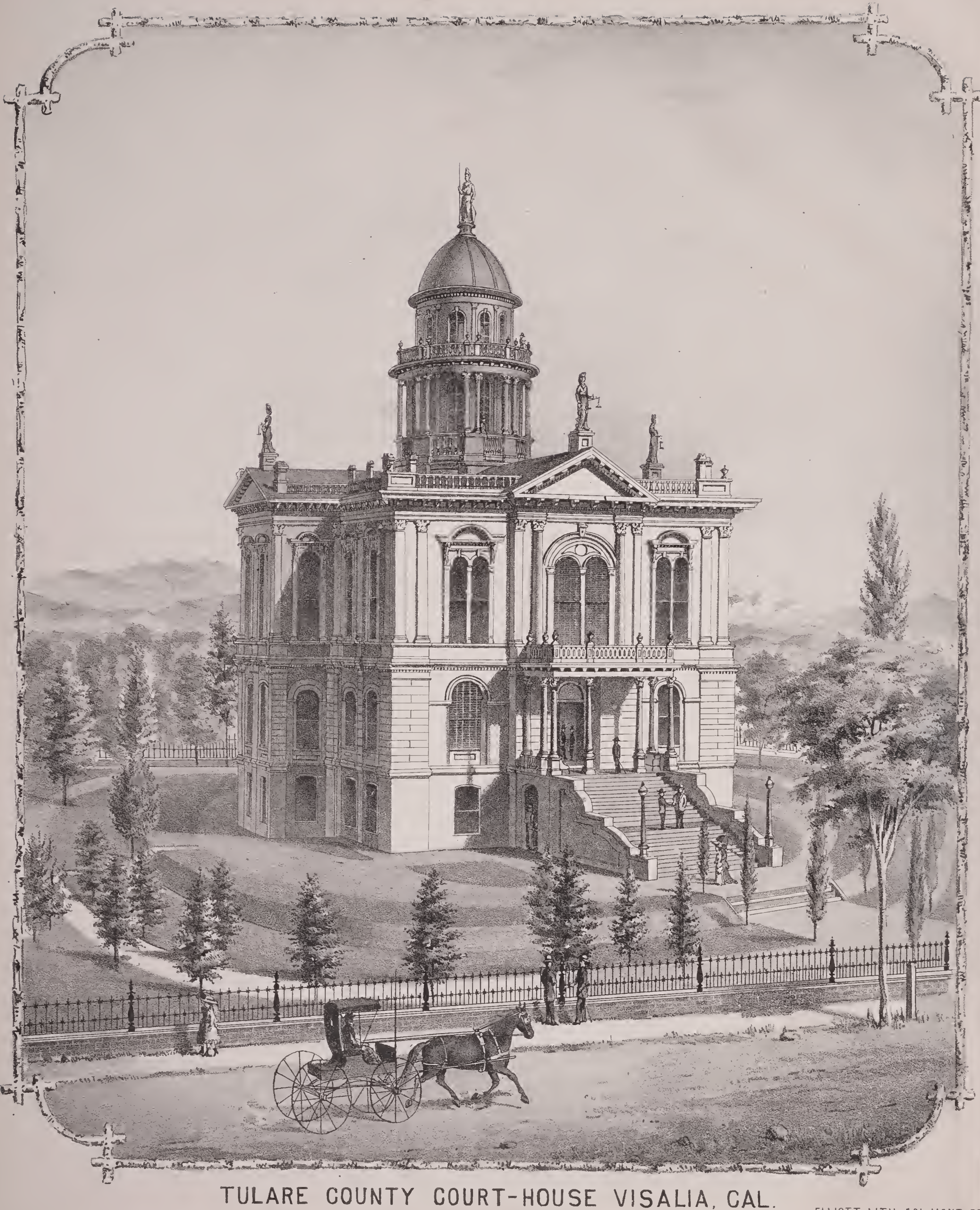


TULARE COUNTY COURT-HOUSE VISALIA, CAL.

ELLIOTT. LITH. 421 MONT. ST.

HISTORY

OF

TULARE COUNTY,

CALIFORNIA,

WITH

ILLUSTRATIONS,

DESCRIPTIVE OF ITS

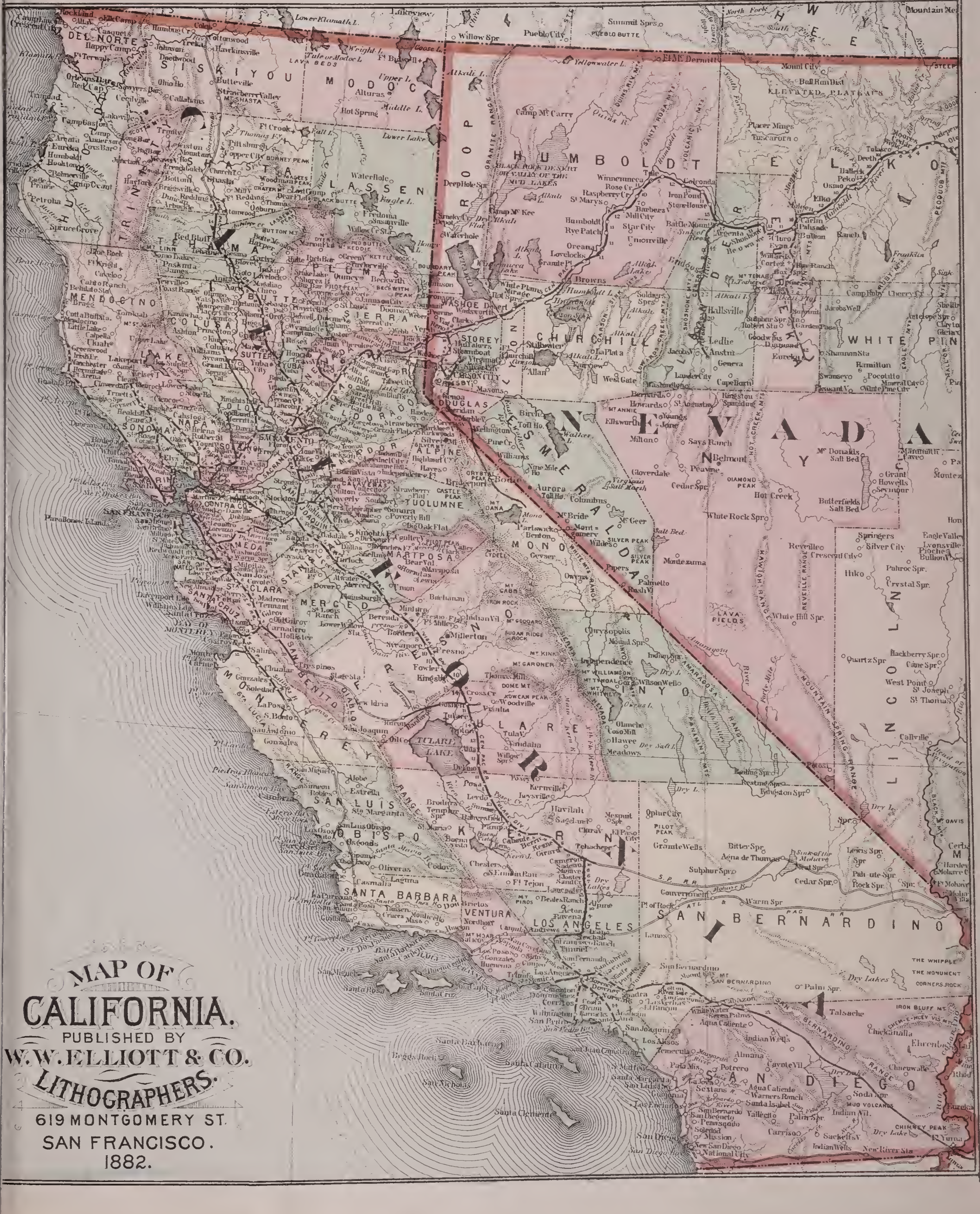
SCENERY, FARMS, RESIDENCES, PUBLIC BUILDINGS,

Factories, Hotels, Business Houses, Schools, Churches, and Mines,

FROM ORIGINAL DRAWINGS,

WITH BIOGRAPHICAL SKETCHES.

WALLACE W. ELLIOTT & CO., PUBLISHERS,
609 Montgomery Street, San Francisco, Cal.
1883.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TRINITY
SHASTA
LASSEN
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TEHAMA
PLUMAS
BUTTE
SIERRA
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COLUSA
LAKE
SUTTER
YUBA
NEVADA
PLACER
EL DORADO
YOLO
NAPA
SONOMA
MARIN
SOLANO
SACRAMENTO
AMADOR
ALPINE
CALAVERAS
TUOLUMNE
SAN JOAQUIN
CONTRA COSTA
ALAMEDA
SAN MATEO
SANTA CLARA
SANTA CRUZ
STANISLAUS
MARIPOSA
MERCED
MONO
FRESNO
SAN BENITO
MONTEREY
INYO
TULARE
SAN LUIS OBISPO
KERN
SANTA BARBARA
VENTURA
LOS ANGELES
SAN BERNARDINO
SAN DIEGO
CALIFORNIA
NEVADA
ROOP
WASHOE
STOREY
CHURCHILL
LANDER
EUREKA
ELKO
WHITE PINE
LYON
DOUGLAS
ESMERALDA
NYE
LINCOLN
OWYHEE
Lower Klamath L.
Goose L.
LAVA BEDS
MT SHASTA
Tulare Lake
Mono L.
Walker L.
Owens L.
Pyramid L.
BLACK ROCK DESERT
HUMBOLDT L.
SAN FRANCISCO
SACRAMENTO
STOCKTON
CARSON CITY
VIRGINIA
Reno
Winnemucca
Elko
Eureka
Austin
Belmont
Pioche
Bodie
Aurora
Los Angeles
San Diego
Santa Barbara
Monterey
San Jose
Oakland
Eureka
Crescent City
Red Bluff
Marysville
Visalia
Bakersfield
Yuma
BAY OF MONTEREY
Farallones Islands
San Miguel
Santa Rosa
Santa Cruz
Santa Barbara
Santa Catalina
San Nicholas
San Clemente
Colorado R.
S. P. R. R.
ATL & PAC R. R.
MT WHITNEY
MT DANA
LAVA FIELDS
Amargosa River
Mohave R.
Dry Lakes
THE WHIPPLE
THE MONUMENT
CORNERS ROCK

MAP OF
CALIFORNIA.

PUBLISHED BY

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LITHOGRAPHERS.

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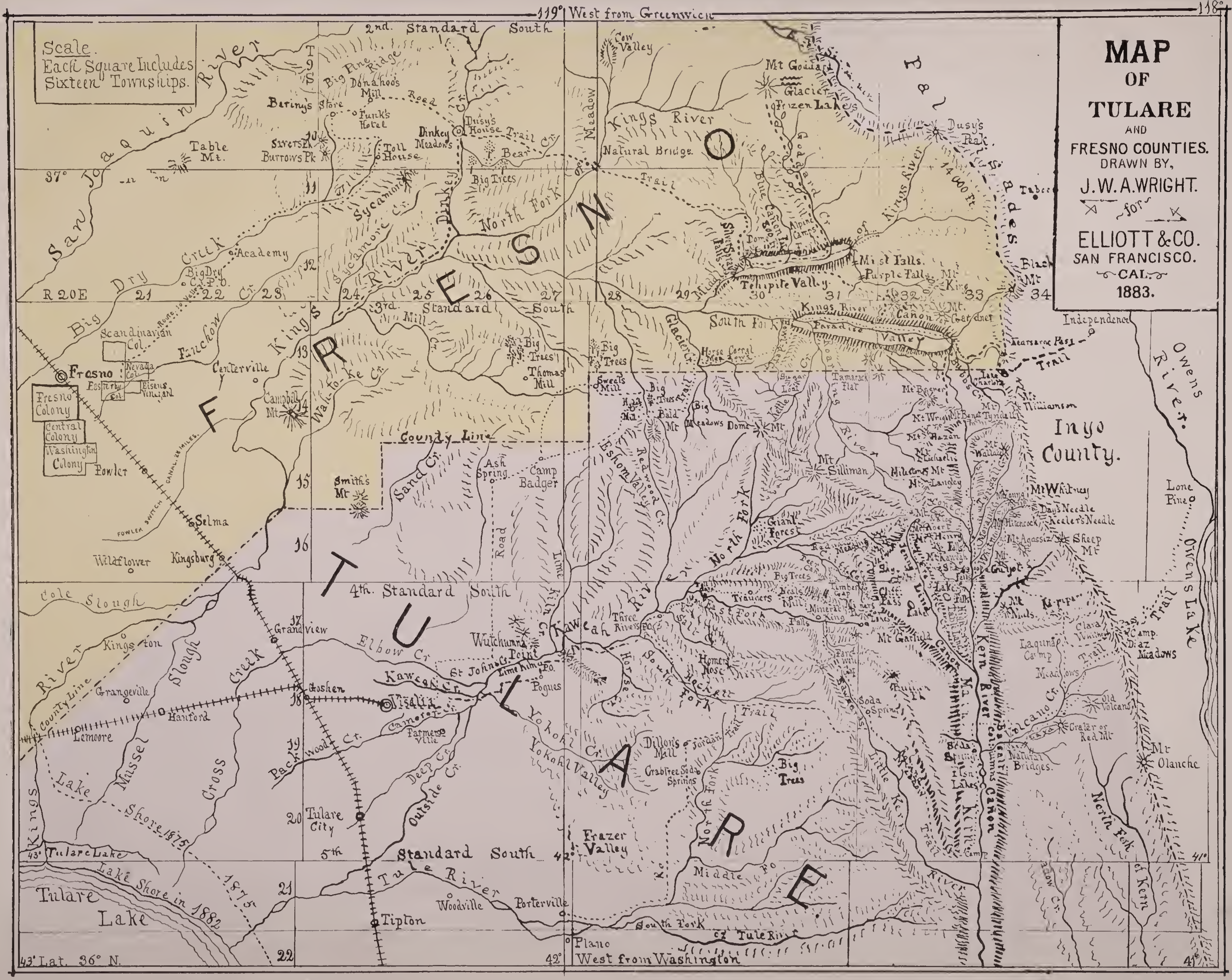
1882.



MAP
OF
TULARE
AND
FRESNO COUNTIES.
DRAWN BY,
J. W. A. WRIGHT.
for
ELLIOTT & CO.
SAN FRANCISCO.
CAL.
1883.

Scale.
Each Square Includes Sixteen Townships.
119° West from Greenwich
118°
2nd. Standard South
3rd. Standard South
4th. Standard South
5th Standard South
37°
R 20 E
43' Lat. 36° N.
42° West from Washington
41°
FRESNO
TULARE
Inyo County.
San Joaquin River
Big Dry Creek
Big Dry Cr. P.O.
Academy
Table Mt.
Berings Store
Big Pine Ridge
Donahoos Mill
Road
Funk's Hotel
Sivers Pk
Burrows Pk
Toll House
Dinkey Meadows
Dusy's House
Trail Cr.
Bear
Big Trees
Sycamore Cr.
Dinkey
North Fork
Kings River
Natural Bridge
Meadow
Cow Valley
Trail
Mt Goddard
Glacier
Frozen Lakes
Goddard Cr.
Blue Canon
Alpine Camps
Silver Spray Falls
Tehipite Valley
Mist Falls
Purple Falls
Mt King
Dusy's Peak
14000 Ft.
Pal
Sierra
Black Mt
South Fork
Kings River Canon
Mt Gardner
Paradise Valley
Kearsarge Pass
Independence
Owens River
Owens Lake
Lone Pine
Scandinavian Col.
Fresno
Nevada Col.
Easterby Col.
Eisens Vineyard
Fresno Colony
Central Colony
Washington Colony
Fowler
Centerville
Fancher
Kings
Campbell Mt.
Walk-ke Cr.
Mill Cr.
Big Trees
Thomas Mill
Sweets Mill
County Line
Smith's Mt
Sand Cr.
Ash Spring
Camp Badger
Road
Lime Kiln Cr.
Canal
Fowler Switch
Selma
Kingsburg
Wildflower
Cole Slough
Kingston
River
Kings
Grangeville
Hanford
Lemoore
County Line
Grand View
Elbow Cr.
Goshen
Visalia
Kaweah Cr.
St Johns
Lime Kiln P.O.
Pogues
Witchumna Point
Kaweah River
Three Rivers P.O.
Packwood Cr.
Cameron
Farmersville
Deep Cr.
Outside Cr.
Tulare City
Mussel Slough
Cross Creek
Lake Shore 1875
Tulare Lake
Lake Shore in 1882
1875
Tule River
Woodville
Tipton
Porterville
Plano
South Fork of Tule River
Middle Fo.
North Fork
Frazer Valley
Yokohl Valley
Yokohl Cr.
Dillon's Mill
Jordan Trail
Crabtree Soda Springs
Big Trees
Horse
South Fork
Hockett Trail
Homer's Nose
Soda Springs
Little Kern
Horse Corral Meadows
Glacier Cr.
Big Meadows
Bald Mt
Dome
Redwood Cr.
Eshom Valley
Giant Forest
North Fork
Sugar Loaf
Tamarack Flat
Kettle
Roaring River
Mt Silliman
Mt Brewer
Mt Wright
Mt Bend
Mt Tyndall
Mt Williamson
Mt Hazen
Mt Michaelis
Mt Langley
Mt Whitney
Mt Young
Days Needle
Mt Hitchcock
Keeler's Needle
Mt Agassiz
Sheep Mt
Mt Guyot
Mt Kaweah
Mt Henry
Mt Garfield
Mineral King
Neals Mill
Travers Mill
Timber Gap
East Fork
Falls
Big Trees
Kern River
Kern River Canon
Basalt Columns
Little Kern Lakes
Soda Springs
Natural Bridges
Volcano Cr.
Crater or Red Mt
Old Volcano
Mt Olanche
Meadows
Laguna Camp
Clara Whitney
Camp Diaz Meadows
Trail
North Fork of Kern
Camp
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INTRODUCTORY.

WORDS OF EXPLANATION.

We do not expect to present our readers with accounts of strange and novel events. We are dealing with the facts of history. These are made up from the statements and records of others. There can be no originality in the work of the historian. Hence our task was to endeavor to gather together all the chief historical facts relative to the county, and arrange them for handy reference for use of residents, as well as furnish valuable information to the traveler, the tourist, or the emigrant who is seeking a location.

This work contains a history of the county, beginning on page 81, and embraced under the following general divisions, which are subdivided, as shown in the table of contents:—

1. First Settlements in the County Limits.
2. Indian Difficulties, Wars, Treaties, and Reservations.
3. County Prior to its Organization.
4. Organization of the County Government.
5. Geographical Features of the County.
6. Geological Formations and Mountains.
7. Rivers, Lakes, and Water Supply.
8. Irrigation and its Results.
9. Soil and its Many Productions.
10. Timber, Resources, and Mills.
11. General Resources and Industries of the County.
12. Rapid Increase in Population and Wealth.
13. Botany of the County.
14. Grand and Sublime Scenery of the Sierra.
15. Descriptions of Towns and Villages.
16. Climate and its Many Advantages to Residents.
17. Lives of Pioneer Settlers of this Region.
18. Mineral Resources and Mines.
19. Secret Societies, Churches and other Organizations.
20. Sketches of Prominent Citizens of the County.
21. Public and Private Schools and their Progress.
22. List of County Officers and Election Returns.

The alphabetical index will be found an invaluable guide, and refers to more than 400 subdivisions of the above subjects.

We have added to the work a State History, which has been kept separate from the local history. It occupies the first eighty pages, and will be found an accurate review of the chief events of interest occurring in the State, as well as their connection with local matters difficult to segregate.

The book is fully illustrated, as may be seen at a glance, with views of many of the principal residences, ranches, orchards, public buildings, and business houses. Portraits of many of the pioneers appear, as well as of county officers and prominent citizens. We have also inserted some 40 wood engravings and lithographs of scenes in the mountains, such as Tulare Lake, Artesian wells, etc.

In preparing this work every source of information has been sought to render it a complete and authentic history—such as the files of newspapers and magazines, all books and publications that could be obtained relating to the subject, old letters and diaries, scrap-books, and interviews with all who could or would relate the incidents of the past, and the facts of the present—all has been gleaned that seemed possible, and from these, and with such aid as others have kindly given, we have compiled and written the history.

Our thanks are due to all the county officials who have aided us in every way in securing information from public documents.

The *Delta*, *Times*, and *Register* gave us free use of articles from their journals. The *Times* loaned us a file of that paper for a series of years, which we found invaluable.

The *Californian* and *Gazette* gave us much valuable information, and extensive use was made of articles from the *Californian*. So far as possible, we have given credit for the articles used.

It has been the policy of men in all ages to preserve by tradition, inscription, monument, or manuscript, the memory of individuals and events associated with the settlement of a State or country. We have therefore given considerable space to the biographical department, which contains very much of interest. A few years from now it will be oftenest perused, for people delight to read of the pioneers of a country and of their trials. Each sketch contains some incidents of pioneer life, or some facts relative to the county, its soil, mode of cultivation, variety of crops, manner of harvesting, average production of different localities, and similar information not easily separated from the personal narrative, but can be found by the sub-headings.

Many old settlers, whose years of honorable toil have transformed the wild lands into harvest-laden fields, have placed us under obligations for historical and biographical incidents connected with the early history of the county.

We expect criticism. All that the publishers ask is that it be done in charity, after considering all the obstacles and hindrances involved in a work of this magnitude. Few persons without actual experience can comprehend the care and pains necessary to complete a book of this description.

Our thanks are due to the citizens of the county for the cordial good feeling manifested toward our enterprise, having received from them that aid and support which can only be expected among prosperous and intelligent people.

The Publishers.

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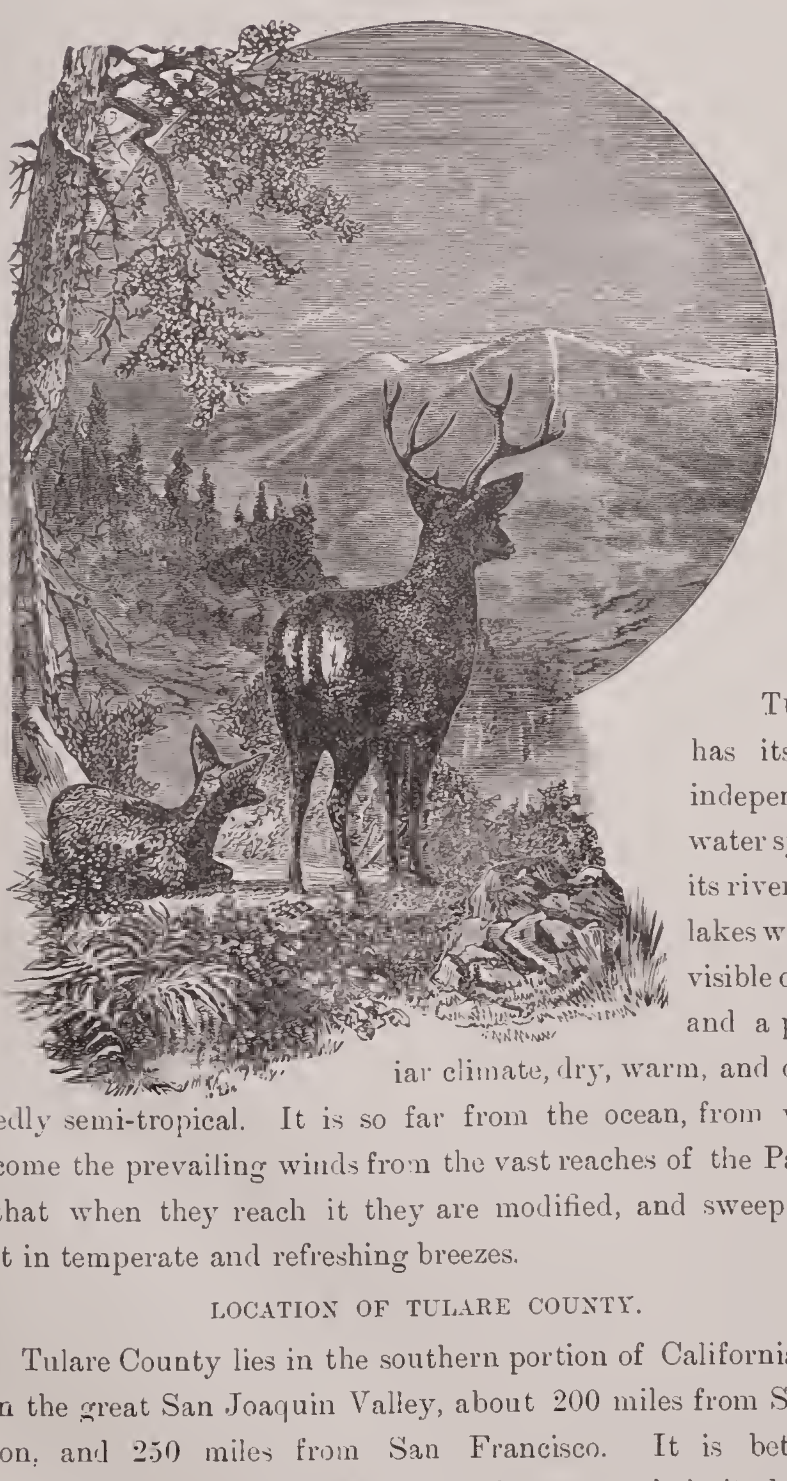
HISTORY

—OF—

TULARE COUNTY, CALIFORNIA.

The Great Tulare Valley.



Tulare has its own independent water system its rivers and lakes with no visible outlet, and a peculiar climate, dry, warm, and decidedly semi-tropical. It is so far from the ocean, from which come the prevailing winds from the vast reaches of the Pacific, that when they reach it they are modified, and sweep over it in temperate and refreshing breezes.

LOCATION OF TULARE COUNTY.

Tulare County lies in the southern portion of California and in the great San Joaquin Valley, about 200 miles from Stockton, and 250 miles from San Francisco. It is between the parallels of about 35° 50′ and 36° 40′ north latitude. It extends from the summit of the Sierras to the Coast Range Mountains, a distance of about 100 miles, and is about sixty-five miles in width, embracing a vast fertile valley of about 60x80 miles in extent.

Tulare County is situated in the heart of the greatest productive Valley of California, a little south of the center of the State. It is bounded on the north by Fresno County, on the south by Kern, east by Inyo, and west by Fresno and Monterey, Monterey being the only county between Tulare and the Pacific Ocean.

A GREAT WATER RESERVOIR.

If the Sierra were not clothed with immense forests, nearly the whole valley of the San Joaquin would be worthless. The forests hold back the melting snow. It desolves gradually.

By means of the great firs and pines, the snow lasts all summer. The western slope of the Sierra is the great reservoir of California. Not only does it supply all the mines on this slope, but it makes the cultivation of all the dry places possible, if ever a system of irrigation can be devised which is not too costly. It is evident that the present method of using water is attended with great waste.

Nothing like half the arable land of Tulare County is irrigated. The great reservoir of the Sierra holds water enough to irrigate all the plains. Yet the system of appropriating water is so wasteful that they never can be irrigated, save in patches here and there.

The west side of the valley is a level plain with a great amount of good soil, but not well supplied with natural water courses. While the east side is abundant with ever-flowing rivers, having their sources high up in the snow-capped peaks of the Sierra Nevada Mountains.

The east side is watered by the Tule, Kaweah, and King's Rivers, and several minor streams which are sometimes swollen to the magnitude of rivers.

In the western part of this county we also find Tulare Lake, a body of clear, pure water, of about thirty-five miles in length by twenty-two in width, abounding with fish and fowl. Two or three islands of considerable magnitude dot the lake, and are made profitable by raising stock on them.

MUSSEL SLOUGH COUNTRY.

Much has been said about the Mussel Slough country in the western portion of this county, but the "half has not been told," nor is it in the power of language to convey an idea of what there exists. It must be seen to be appreciated. The fertility of the soil, salubrity of the climate, and its adaptability to a wonderful variety of productions are unequaled in the world. A considerable extent of country has been irrigated, and the productiveness of the irrigated lands far exceeded the expectations of all. Improvements of various kinds are being made in every direction. It will be but a short time until this section will be in a high state of cultivation and present an appearance of prosperity unequaled in the State. No such thing as failure of crops is ever known, as King's River always carries a vast amount of water. The rapid advancement made by the settlers in this portion of the county, together with their many public enterprises, demonstrates the fact that the desert can be made to blossom as the rose.

CHIEF PRODUCTIONS.

The staple products of the county thus far have been wheat, barley, oats, corn and alfalfa; while flax, rice, cotton, and tobacco grow luxuriantly.

Of the fruits the most common are, apple, peach, pear, plums, figs, apricots, and grapes; while enough oranges, lemons, limes, pomegranates, nectarines, almonds, quince, cherries, and berries of almost every name and variety have been raised to demonstrate the fact that they can be produced in great quantities and of a choice quality. Vegetables, such as potatoes, cabbage, peas, beans, and of almost every other name for which the appetite of man creates a demand, are raised in great abundance.

Many of the semi-tropical fruits, such as oranges, lemons, almonds, olives, etc., grow and flourish finely, and could be made very profitable by proper culture. The finest fruit of any kind grows in the foot-hills; also the earliest vegetables. The valleys farther back in the mountains are narrower and altogether different in climate as they approach the crest.

EXTENT AND RESOURCES.

The natural resources of the soil and climate make it a world in itself, to which a bright future looms up more radiant than any clime over which civilization has coursed its way. The distance from the plains to the crest of the mountains, varies from thirty to six miles on the east side of the valley, the highest peak being about 15,000 feet. Numerous streams course their way westward from the mountains, their branches running in almost every conceivable direction before entering the plains, forming almost numberless valleys and broken hills, varying in height as the distance in the mountain is penetrated. The valleys are large and more important nearer the plains, and are remarkably healthy, the climate being somewhat milder than in the broad valleys. They are susceptible of a high state of cultivation.

The large extent, varied resources, and known capabilities of the lands of the valley, give assurance that at an early day it will become densely populated by a prosperous people. The cultivation of the soil will always be the principal industry, yet there are numerous opportunities for the establishment of such others as are required to make a community truly independent and self-sustaining.

This valley is destined to eventually become one of the most prosperous and favored regions on the continent. Its vast area, favorable climate, fertile soil, and varied mineral and agricultural resources, must necessarily attract the attention of the immigrant and capitalist, and they will unite to develop its latent wealth. Thus far the great work has been barely commenced.

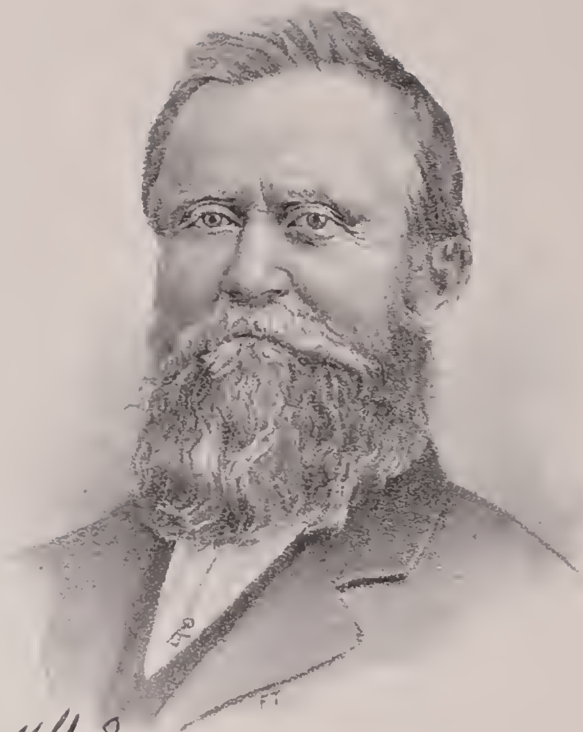
Nearly every necessary or luxury required by man can be here produced, and the inhabitants of this valley will have all the advantages of a ready access to the principal markets of the world, either for the disposal of their surplus products, or for the purchase of necessary supplies.

VALUABLE UNCULTIVATED LANDS.

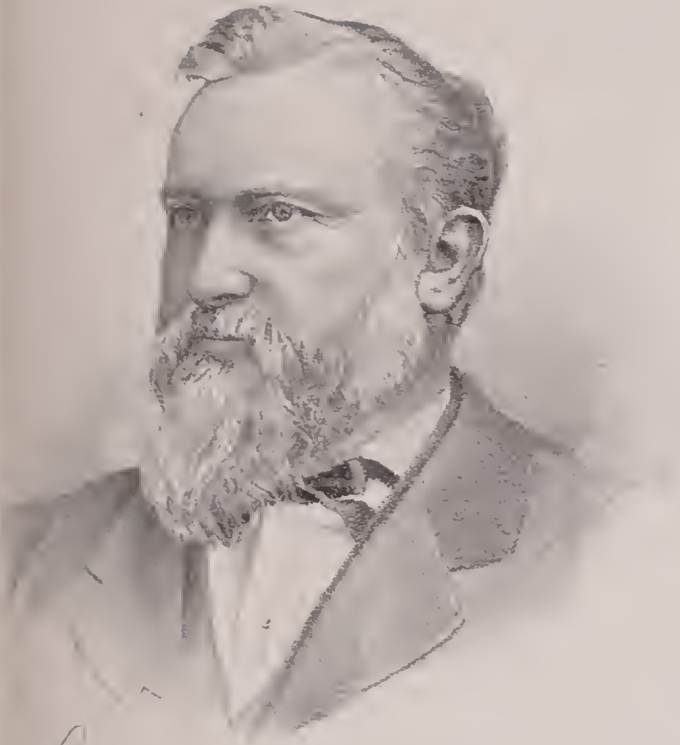
Immense tracts of overflowed land that might be reclaimed and made to produce extraordinary crops of wheat, or which could be devoted to the cultivation of other valuable products, are as yet unimproved. Thousands of acres of virgin soil remain uncultivated, although capable of returning rich returns for the labor expended upon them. There is room for a much larger population, and no possibility that the labor market can be overstocked for years to come. Manufactories are required to utilize the various products that are now allowed to go to waste; canals are to be dug for irrigating the arid plains; railroads constructed to furnish cheaper transportation; mines and quarries are to be opened, that their products may be rendered available, and numerous new industries inaugurated in order that the resources of this vast region of country may be fully developed.

Tulare County to-day stands pre-eminent among the counties of California in the productions of her soil. The progress she has made within the last ten years has been marvelous. Its resources are great; its climate, for the most part, delightful; its products are of the best; its people hospitable and magnanimous; its scenery beautiful; its plains fertile; its mountains rich in timber, stone, and precious metals.

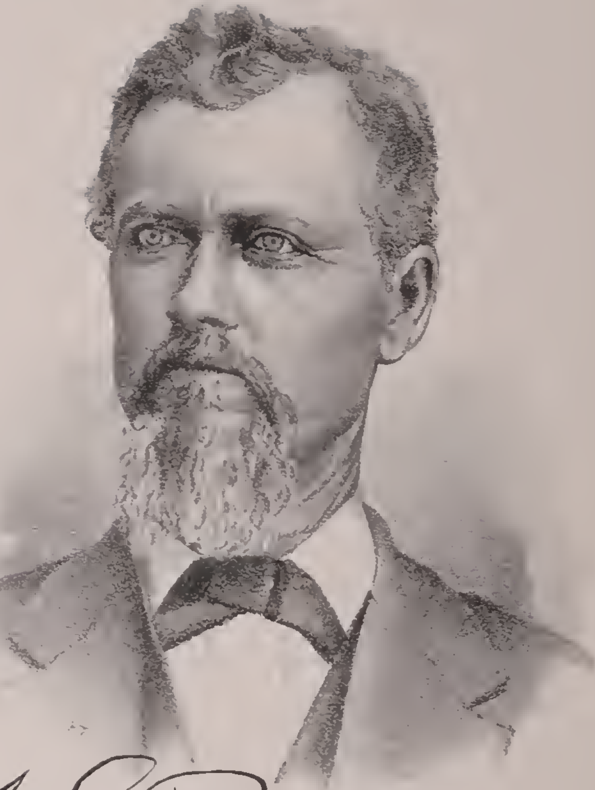
The Southern Pacific Railroad runs through the county from north to south, in about the center of the great productive valley, in such a manner as to split into two equal parts. Two branch roads run east and west from near the center of the best part of the county.



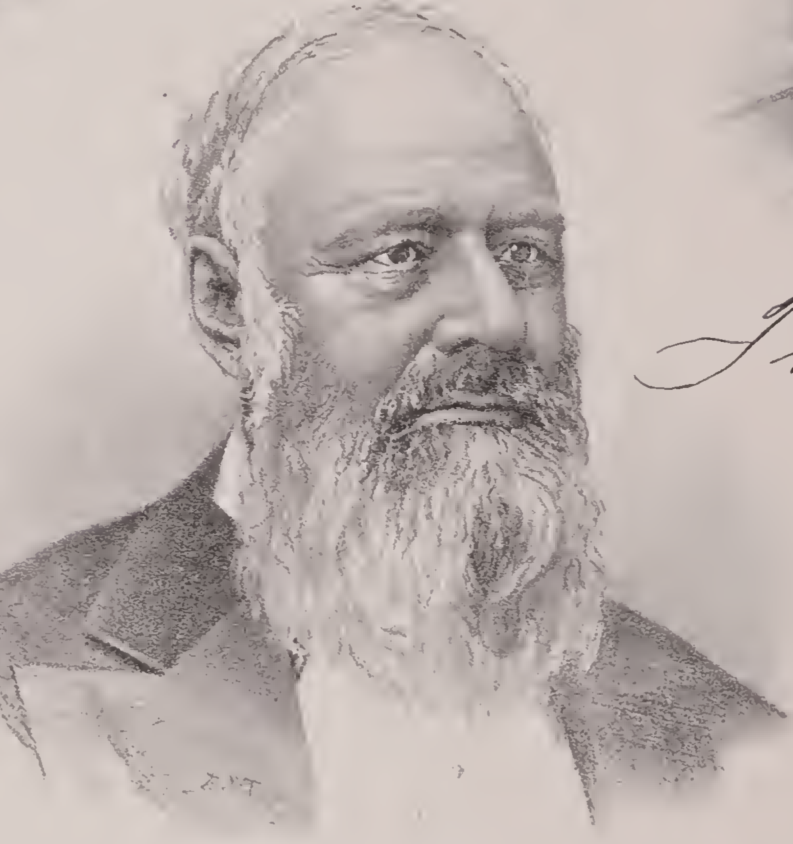
Thos. J. McQuiddy.



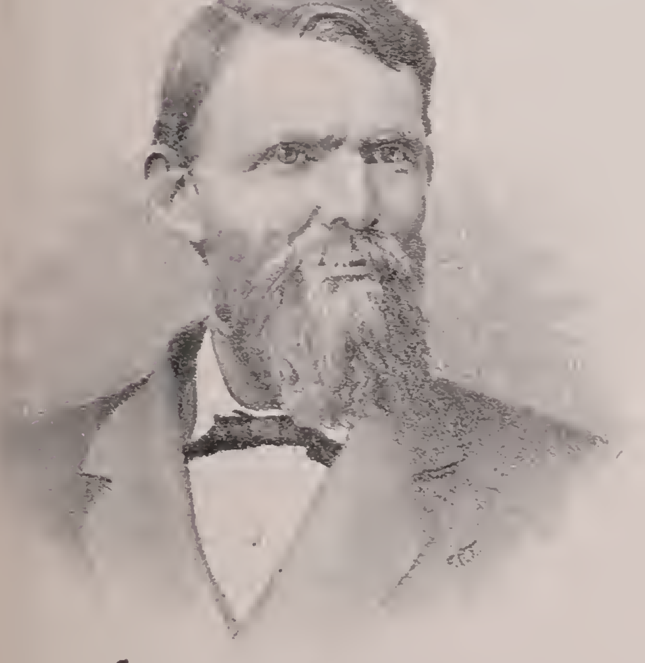
Jno. H. Wright



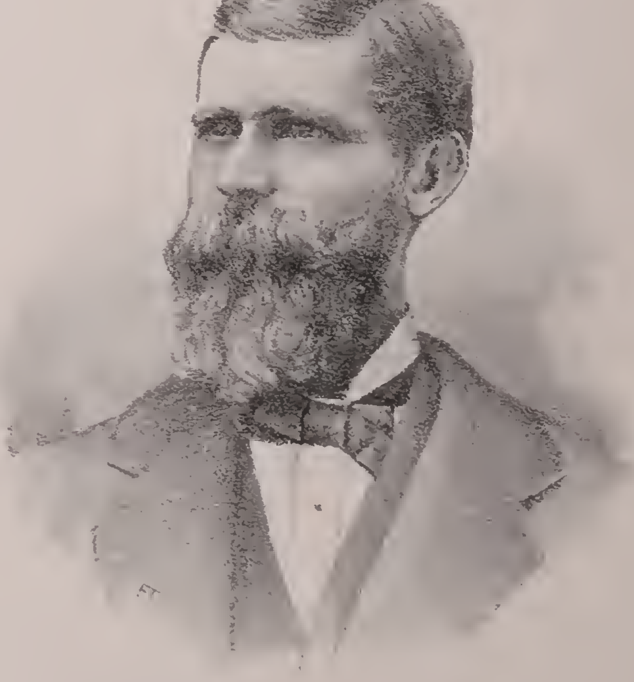
J. S. Robinson



Daniel Rhoads.



J. T. Urton.



G. F. Thornton

ELLIOTT & CO. LITH. 421 MONT. ST. S.F.

A GLANCE AT EARLY HISTORY.

Before entering more fully upon the history of the county it would seem appropriate to take a glance at the early history of the State, and note a little of its progress during a short decade; including the first establishment, rise and decline of the missions; the rapidity and grandeur of its wonderful rise and progress; the extent of its home and foreign commerce; the discovery and astonishing produce of gold. No county history therefore could be complete unless it included some account of the circumstances which brought each county into existence, and from whence came the men who organized and set the machinery of State and local governments in operation. It would thus be well, then, that posterity should know something of the early history of the State as well as of their own immediate neighborhood; and by placing these scenes upon record they will remain fresh in the minds of the people that otherwise, in the lapse of years, must gradually fade away.

RAPID SETTLEMENT AND PROGRESS.

One hundred years ago—almost within the memory of men now living—but very little of California's soil had been trodden by the foot of civilized man. Up to the discovery of gold in 1848, it was an afar-off land, even to those on the western border of civilization. School-boys then looked upon their maps and wondered if they might ever be permitted to traverse the "unexplored region" marked thereon. About that time, when Thomas H. Benton said the child was then born that would see a railroad connecting ocean with ocean, most people smiled and thought that the day-dream of the old man had somewhat unsettled his hitherto stalwart intellect. No dream of forty years ago, no matter how bright the colors that may have been placed before the imagination, ever pictured the California of to-day—our own, our loved California.

PACIFIC OCEAN FIRST SEEN.

1513.—The Pacific Ocean was given to the world by Vasco Nuñez de Balboa, who looked down from the heights of Panama upon its placid bosom on the 25th day of September, 1513 the same year in which Mexico was conquered by Hernando Cortez. To Balboa, therefore belongs the credit of first seeing the Pacific Ocean. He, however, supposed it to be the great Southern Ocean. In 1520, Fernando Magellan sailed through the straits that bear his name, and finding the waters so little disturbed by the storms, he was induced to give it the name of *Pacific Ocean.*

DISCOVERY OF CALIFORNIA.

1534.—Cortez fitted out two ships for discovery of the Pacific Coast. One was commanded by Becarra, who was murdered by his crew, led on by his own pilot Ortun, or Fortuño Zimenes.

Zimenes afterward continued the voyage of discovery, and appears to have sailed westward across the gulf, and to have touched the peninsula of California. This was in the year 1534. He therefore was the first discoverer of the country.

DISCOVERY OF CAPE MENDOCINO.

1542.—On the 27th of June, 1542, Juan Rodriguez Cabrillo, who had been one of Cortez's pilots, left Navidad, in Mexico, under instructions from Antonio de Mendoza, Viceroy of Spain, on a voyage of discovery. On the 5th of July he landed at Cape St. Lucas, in Lower California, and following the coast, he finally entered the delightful harbor of San Diego, in Upper California, on September 28th. This place he named San Miguel, which was afterwards changed by Viscaiño to that which it now bears.

1543.—He passed by the Golden Gate and reached latitude 44° on the 10th of March, 1543. The cold became so intense that he headed his ship again for Navidad. Cabrillo landed at Cape Mendocino, which he called *Cabo de Fortunas* (Cape of Perils), from the dangers encountered in its vicinity. This was February 26, 1543. Whatever discoveries may have been made by this navigator, were followed by no practical results.

SECOND EXPLORING EXPEDITION.

1579.—The next expedition along the coast seems to have been that of the English buccaneer, Francis Drake, afterwards knighted by Queen Elizabeth for his success in capturing and destroying the rich Spanish ships. There long existed a popular belief that Drake sailed into the harbor of San Francisco, and that the bay was named for him; but it is now well settled that the bay he entered was that of Tomales, on the coast of Marin County. This once bore the name San Francisco.

This noted English voyager, Sir Francis Drake, sailed along the coast in 1579. It is said his Spanish pilot, Morera, left him in Oregon, and thence found his way overland to Mexico, a distance of 3,500 miles. The name of New Albion was given to the country by Drake, with the evident intention of securing it for the British crown.

On the 22d of July, after repairing his ship and doubtless taking on board a goodly supply of fresh meat and water, Drake set sail for England, going by way of the Cape of Good Hope, and arriving in Plymouth November 3, 1580, having been gone about two years and ten months. He was the first Englishman who circumnavigated the globe, and was the first man who ever made the entire voyage in the same vessel. He was graciously received by Queen Elizabeth, and knighted. She also gave orders for the preservation of his ship, the *Golden Hind'* that it might remain a monument to his own and his country's glory.

At the end of a century it had to be broken up, owing to decay. Of the sound timber a chair was made, which was presented by Charles II. to the Oxford University.

Sir Francis Drake died on board ship, at Nombre de Dios, in the West Indies, January 28, 1595.

DESCRIPTION OF THE ORIGINAL INHABITANTS.

1579.—The following is a highly colored description of the natives, as given by Drake: The natives bringing the Admiral (Drake) a present of feathers and cauls of net-work, he entertained them so kindly and generously that they were extremely pleased, and soon afterwards they sent him a present of feathers and bags of tobacco. A number of them coming to deliver it, gathered themselves together at the top of a small hill, from the highest point of which one of them harangued the Admiral, whose tent was placed at the bottom. When the speech was ended, they laid down their arms and came down, offering their presents, at the same time returning what the Admiral had given them. The women remaining on the hill, tearing their hair and making dreadful howlings, the Admiral supposed them engaged in making sacrifices, and thereupon ordered divine service to be performed at his tent, at which these people attended with astonishment.

The arrival of the English in California being soon known through the country, two persons in the character of ambassadors came to the Admiral and informed him, in the best manner they were able, that the King would visit him, if he might be assured of coming in safety. Being satisfied on this point, a numerous company soon appeared, in front of which was a very comely person, bearing a kind of sceptre, on which hung two crowns, and three chains of great length. The chains were of bones, and the crowns of net-work, curiously wrought with feathers of many colors.

A MAJESTIC INDIAN KING.

Next to the sceptre-bearer came the King, a handsome majestic person, surrounded by a number of tall men, dressed in skins, who were followed by the common people, who, to make the grander appearance, had painted their faces of various colors, and all of them, even the children, being loaded with presents.

The men being drawn up in line of battle, the Admiral stood ready to receive the King within the fences of his tent. The company having halted at a distance, the sceptre-bearer made a speech, half an hour long, at the end of which he began singing and dancing, in which he was followed by the King and all the people, who, continuing to sing and dance, came quite up to the tent; when sitting down, the King took off his crown of feathers, placed it on the Admiral's head, and put on him the other ensigns of royalty; and it is said that he made him a solemn tender of his whole kingdom; all of which the Admiral accepted in the name of the Queen, his sovereign, in hopes that these proceedings might, one time or other, contribute to the advantage of England.

ATTEMPT TO POSSESS THE COUNTRY.

1602.—Then there is another silence conce ning this region, of twenty-four years, when Viscaiño comes, exploring more carefully, and searching for harbors.

It was not until 1602 that the Spaniards took any actual steps to possess and colonize the continent. In that year Don Sebastian Viscaiño was dispatched by the Viceroy of Mexico, acting under the instructions of his royal master, King Phillip III., on a voyage of search, in three small vessels. He visited various points on the coast, among them San Diego.

BAY OF MONTEREY FOUND AND NAMED.

1602.—It is he who finds Monterey Bay. He gets there December 16, 1602. His object was to find a port where the ships coming from the Phillipine Islands to Acapulco, a trade which had then been established some thirty years, might put in, and provide themselves with wood, water, masts, and other things of absolute necessity.

Viscaiño gave the name of Monterey to that bay. On the next day after he anchored near the site of the present town of Monterey, religious worship was held "under a large oak by the sea-side."

The description they give of the harbor says: "Near the shore is an infinite number of very large pines, straight and smooth, fit for masts, and yards, likewise oaks of a prodigious size for building ships. Here likewise are rose trees, white thorns, firs, willows and poplars; large clear lakes, and fine pastures and arable lands."

Viscaiño leaves on the 3d of January, 1603, and then follows a long silence of more than a hundred and sixty years, during which no record speaks of this region of country.

FOUNDING OF FIRST MISSION.

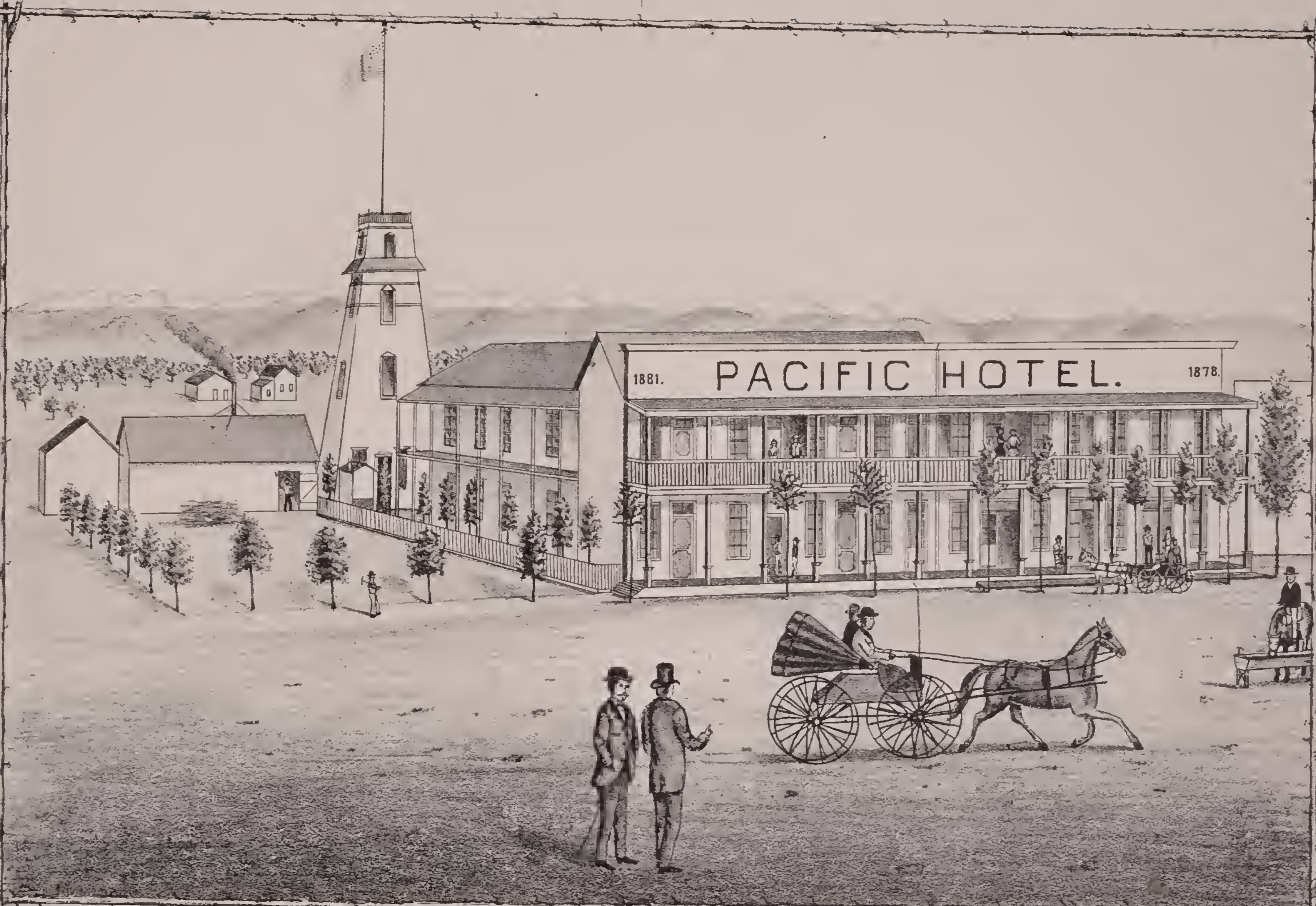
1763.—A great zeal for missions had sprung up, and then prevailed in Mexico for Christianizing the regions at the North. The glowing descriptions of the old navigators who touched here more than a hundred and fifty years before, were revived, and now came into existence a desire, both in Spain and Mexico, to enter into and possess the land. Two divisions of the expedition reached San Diego nearly at the same time. One by sea and the other by land, up the peninsula of Lower California.

They were at San Diego together, and founded the first of the missions of Upper California on the 16th day of July, 1769. But their zeal was too great to allow them to wait at the southernmost border of the promised land. They set their faces northward.

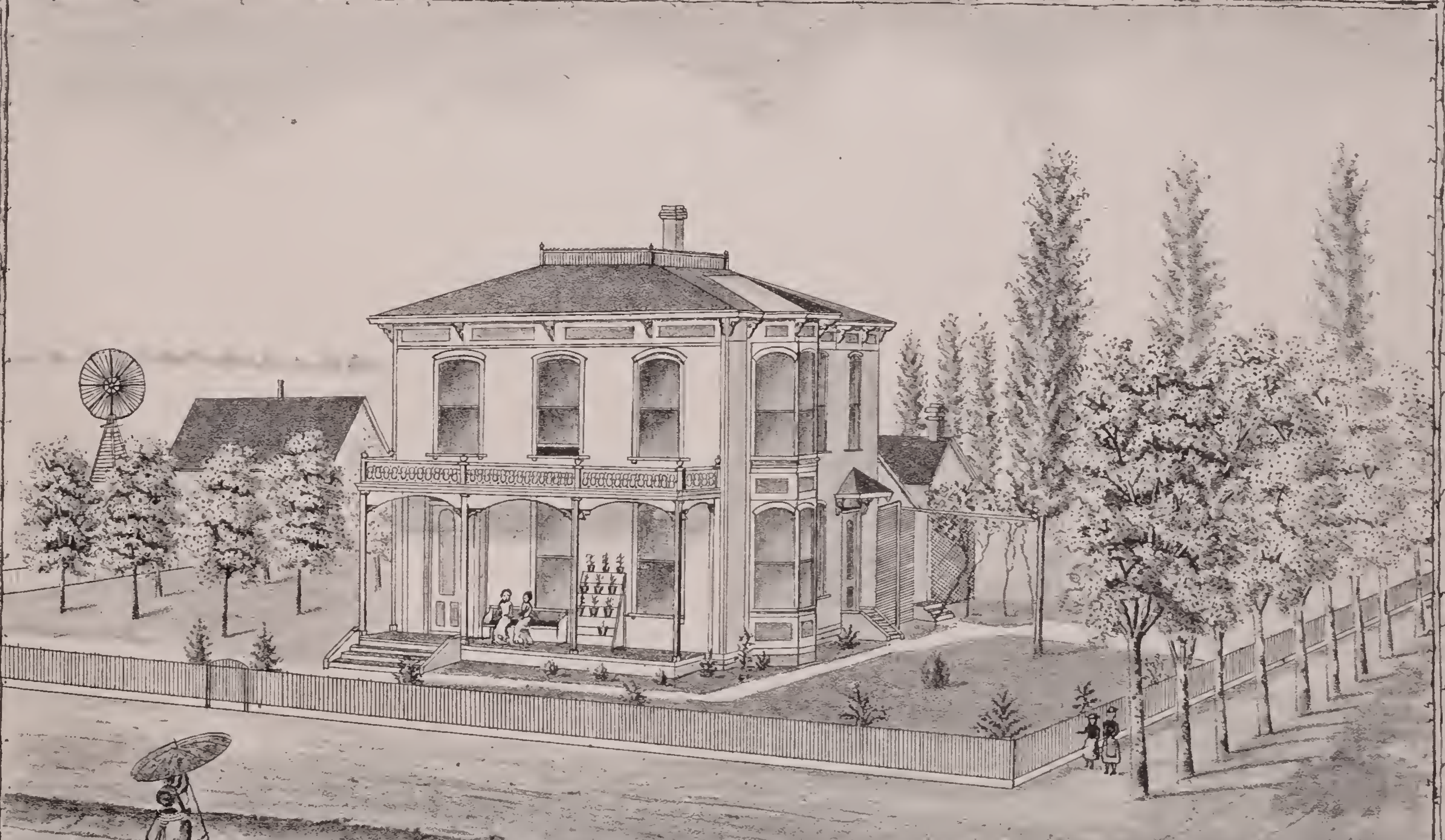
MONTEREY SEARCHED FOR AFTER 167 YEARS.

1769.—They had read of Viscaiño, and his glowing description of the country around the bay he named "Monterey." They proposed to set out at once to find it by land.

The expedition left San Diego July 16, 1769, and was composed of Governor Portala, Captain Revera, with twenty-seven soldiers with leathern jackets, and Lieutenant P. Fages, with seven volunteers of Catalonia, besides Engineer Constanzio, and fifteen Christian Indians, from Lower California.


1881.
PACIFIC HOTEL.
1878.

HOTEL & CITY WATER WORKS OF D. W. MADDEN. TULARE CITY. TULARE CO. CAL



RESIDENCE OF A. T. COTTON. TULARE CITY. TULARE. CO. CAL.

Fathers Crespi and Gomez accompanied them for their spiritual consolation, and to keep a diary of their expedition. Owing to Father Crespi's diary, the principal incidents of this first journey by land up this coast are known to us. They kept near the sea-shore most of the way. They were constantly passing rancherias of Indians, whom they greeted as well as they knew how, and they were not molested by them. It was late in September when they came in sight of the Bay of Monterey, the very bay they were in search of, but they did not recognize it!

Father Crespi and the Commandant ascended a hill and looked down upon it.

MONTEREY BAY NOT RECOGNIZED.

1769.—They recognized Point Pinos, and New Year's Point as described by Cabrera, but they did not recognize the bay as Viscaiño's Bay of "Monterey!" It is certainly very strange that they did not, but for some reason they did not seem to have thought of its being the very identical spot they were in search of.

The description of it by which they were guided, was of course one given by those coming into the bay by water. It may not have been detailed or definite, or suited to guide those seeking it by land.

At any rate, the soldiers explored Point Pinos on both sides, and yet never recognized the place. They searched from the 11th of November to the 9th of December.

They were all half of a mind to give up the search and go back.

But the resolution to proceed still further prevailed, and so they resumed their march. We trace them now step by step. They crossed the Salinas River. They passed several lagoons. They descended into the Pajaro Valley, and camped near the bank of the river.

DESCRIPTION OF THE NATIVES.

Moreover, in this valley they met with an encampment of Indians, numbering, as they said, five hundred.

The Indians had no notice of the arrival of strangers in their land, and were alarmed. Some took to their arms; some ran to and fro, shouting. The women fell to weeping bitterly. Sargent Ortega alighted from his horse and approached them, making signs of peace.

He picked up from the ground arrows and little flags which they had set, and they clapped their hands in signs of approbation.

They were asked for something to eat. The women hastened to their huts and began to pound seeds and make a kind of paste.

But when the fathers returned to the same spot the next day, they found only smoking remains of the Indians' camp, the Indians themselves having set fire to it and gone away.

NAMES GIVEN TO RIVERS AND TREES.

1769.—They named the river "Pajaro," because they found here an immense bird killed, stuffed with hay, measuring nine feet and three inches from tip to tip of the wings spread out. Here, too, not far from the river, they made note of finding deer.

They described the banks of the Pajaro River as they found them in the fall of 1769, thickly covered with trees. They spoke particularly of the redwood, calling it "palo colorado," on account of its color. Father Crespi says the trees are very high, and thinks they resemble the cedar of Lebanon, save that the wood has no odor. The leaves, too, he says, are different, and the wood is very brittle.

They stopped near a lake where there was a great deal of pasture, and they saw a number of cranes. They rested there three days, on account of the sick.

On the 17th of October they moved on again, walking all the time through good land, at a distance of some three miles from the sea.

At the end of that day's journey, they came to the river known as San Lorenzo. They proposed to cross it, not far from the sea. They found the banks steep. They were thickly grown with a forest of willows, cotton-wood and sycamore, so thick that they had to cut their way through.

The river was fifty-four feet wide at the point where they forded, and the water reached the belly of their horses. "It was one of the largest rivers," Father Crespi says, "that we met with on our journey."

"We camped on the north side of the river, and we had a great deal of work to cut down trees to open a little passage for our beasts. Not far from the river we saw a fertile spot, where the grass was not burnt, and it was pleasure to see the pasture, and the variety of herbs and rose bushes of Castile. We did not see near the river, nor during our journey, any Indians."

The next day about eight o'clock in the morning they moved on again.

"After proceeding about five hundred steps," Father Crespi says, "we passed a large stream of running water which had its source among high hills, and passing through a table-land, furnishes ample facility for irrigation." This creek they called "Santa Cruz." And so the little stream gave its name to the city.

Perhaps Justiniano Roxas* saw this first party of white men that ever visited this region. He must have been then about sixteen or seventeen years old.

The company remained some sixteen days near the Bay of

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*Justiniano Roxas died at Santa Cruz, March 10, 1875, aged 123 years. His portrait and biography were inserted in Elliott's History of Santa Cruz County. From that article we learn he was for years about as destitute of flesh as a skeleton. His skin was yellow, hard and full of creases, and looked like parchment. Age had taken all expression from his countenance. His eyes were nearly closed. He walked with a staff. His last years were spent in trying to keep warm. At night he spread his blanket by the hearth, with his head toward the fire. He would not use a bed. He was cared for by the Sisters of Charity, aided by the county. He was baptized 4th of March, 1792 by the record.

Monterey. Long enough to get a very fair idea of the climate. The sky was clear and there was no fog.

They pushed on northward until they discovered San Francisco Bay and reached the Golden Gate itself.

BAY OF SAN FRANCISCO FOUND AND NAMED.

1769.—On the 1st of November, 1769, they sent a party to Point Reyes. On the 2d of November, several hunters of the expedition ascended the high mountains more towards the east: and, although we have no correct information as to the names of those hunters, it is certain that they were the first white inhabitants who saw the large arm of the sea known at present as the Bay of San Francisco.

The portion that was seen by them was that which lies between the San Bruno mountains and the estuary or creek of San Antonio (Oakland). They discovered the bay, unless the honor is accorded to the exploring party that returned on the 3d of November, who also had discovered the branch of the sea, by which they were prevented from reaching Point Reyes, and the primitive bay first called San Francisco.

On the 4th of November the whole of the expedition saw the newly discovered bay, and they tried to go around it by the south; but not being able to do so, they returned to Monterey. And so, by the merest accident, they came upon the world-renowned Bay of San Francisco.

Finding it a place answering every requirement he named it after San Francisco de Asis; and seven years later, June 27, 1776, possession was taken of the spot and a presidio established, the mission being located on the site of the present church.

MONTEREY BAY VISITED AGAIN BUT NOT RECOGNIZED.

1769.—Towards the end of November, we find them tarrying around Monterey again, not even now knowing that they were looking on the very harbor they were in search of! They even think it possible that the harbor that Viscaiño found 166 years before, and described in such glowing terms, may be filled with sand, and for that reason they cannot find it. They erect a large cross near Point Pinos and place a writing at the foot of it, describing their hardships and disappointments, in case the vessel called the *San Jose* should anchor in that vicinity, and any of those on board should discover the cross and find the writing.

Finally, after many hardships, on the 24th day of January, 1770, half dead with hunger, they arrive at San Diego, after an absence of six months.

They have accomplished that long and exceedingly laborious journey; they have twice passed and looked upon the very bay they were in search of, not knowing it!

MONTEREY BAY FOUND AT LAST.

1770.—The next time Monterey Bay was searched for it was found. It was in the same year, 1770, that two new expeditions were fitted out. The two parties set out from San Diego to find it, one by land, the other by water. They find the bay this time, reaching it very nearly together.

On the 3d day of June, 1770, they take possession of the land in the name of the King of Spain.

On the same day Father Junipero begins his mission by erecting a cross, hanging bells from a tree, and saying mass under the same venerable rock where Viscaiño's party celebrated it in 1602, 168 years before.

OBJECT OF THE MISSIONS.

The missions were designed by the Mexican Catholics for the civilization and conversion of the Indians. The latter were instructed in the mysteries of religion (so far as they could comprehend them) and the arts of peace. Instruction of the savages in agriculture and manufactures, as well as in prayers and elementary education, was the padre's business.

At first the Indians were exceedingly cautious about approaching or connecting themselves with this new style of civilization, but gradually their fears and superstitions were overcome, and they began to cluster about the fathers. Their old habits and manner of living were thrown off, and they contented themselves with the quiet life and somewhat laborious duties of the missions.

INDIANS NOT EASILY CIVILIZED.

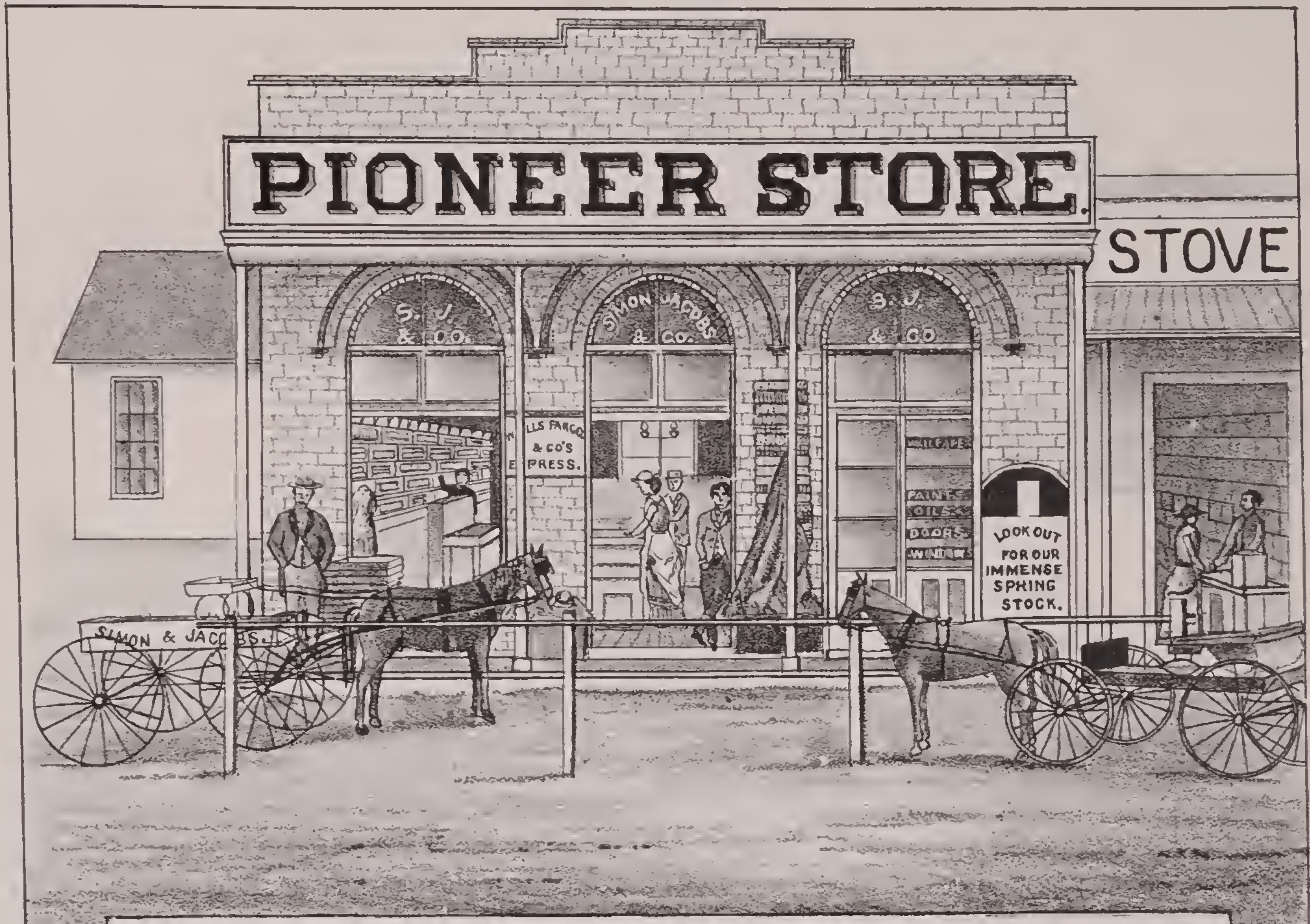
The California Indian was anything but an easy subject for civilization. Knowledge he had none; his religion and morals were of the crudest form, while all in all he was the most degraded of mortals. He lived without labor, and existed for naught save his ease and pleasure. In physique he was unprepossessing; he was possessed of great endurance and strength; his features were unattractive, his hair in texture like the mane of a horse, and his complexion as dark as the Ethiop's skin.

His chief delight was the satisfying of his appetite and lust, while he lacked courage enough to be war-like, and was devoid of that spirit of independence usually the principal characteristic of his race. The best portion of his life was passed in sleeping and dancing, while in the temperate California climate the fertile valleys and hill-sides grew an abundance of edible seeds and wild fruits, which were garnered, and by them held in great store.

Such means of existence being so easily obtained is, perhaps, a reason for the wonderful disinclination of Indians to perform any kind of labor. Indeed, what need was there that they should toil when nature had placed within their reach an unlimited supply of food?

MISSION RANCHOS SET APART.

Besides the missions, presidios, castilos, and pueblos, it may be remarked that there were certain public farms, called *ranchos*, set apart for the use of the soldiers. They were gen-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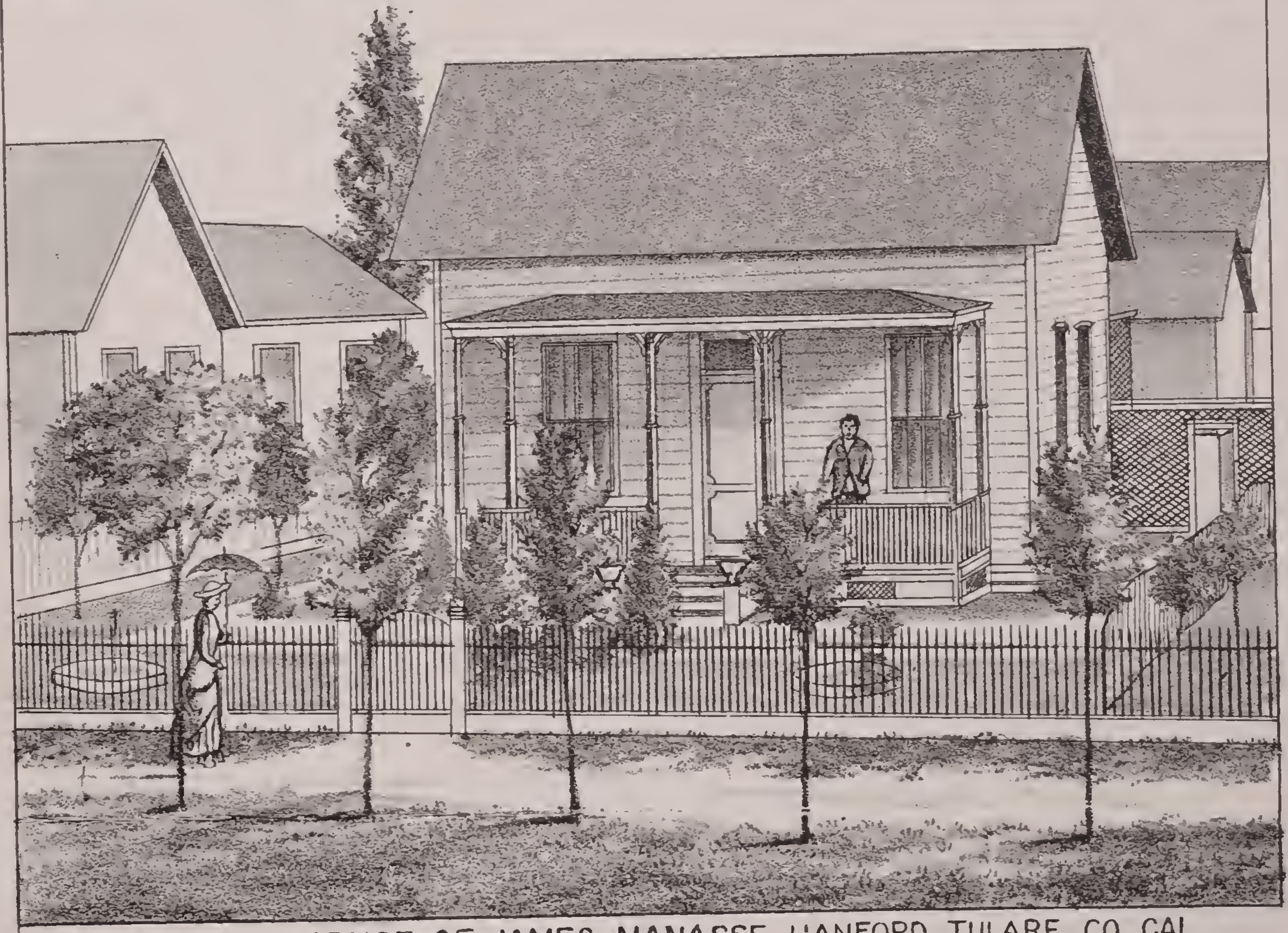

. TOWN RESIDENCE OF JAMES MANASSE. HANFORD. TULARE CO. CAL.

erally four or five leagues distant from the presidios, and were under the control of the different commandants. Little use, however, seems to have been made of these farms, and they commonly were left in a state of nature, or afforded only grazing to the few cattle and horses belonging to the presidios.

In the establishment of missions the three agencies brought to bear were the military, the civil, and the religious, being each represented by the *presidio*, or garrison; the *pueblo*, the town or civic community; and the *mission*, the church, which played the most prominent part.

TABLE OF THE UPPER CALIFORNIAN MISSIONS.

NO.	NAME.	DATE OF ESTABLISHMENT.	LOCATION.
1	San Diego de Meala.........	July 16, 1769	Bay of San Diego.
2	San Carlos de Monterey	June 3, 1770	Subsequently removed from Monterey to the Carmel river.
3	San Antonio de Padua	July 14, 1771	13 leagues f'm San Miguel, Monterey co.
4	San Gabriel de los Temblores	Sept'r 8, 1771	Rancho La Merced, eleven miles easterly from Los Angeles, soon removed to present location, nine miles east of the city.
5	San Luis Obispo	Sep 1, 1772	At present town of San Luis Obispo.
6	San Francisco (Dolores). ..	Oct'r 9, 1776	On San Francisco Bay.
7	San Juan Capistrano	Nov'r 1, 1776	About midway between Los Angeles and San Diego.
8	Santa Clara	Jan'y 18, 1777	Where town of Santa Clara now stands.
9	San Buenaventura....	March 31, 1782	South-east of and near Santa Barbara.
10	Santa Barbara	Dec'r 4, 1786	On the Santa Barbara channel.
11	La Purissima Conception .	Dec'r 8, 1787	On the Santa Inez river.
12	Santa Cruz	Aug't 28, 1791	Where town of Santa Cruz now stands.
13	La Soledad	Oct'r 9, 1791	On tho Salinas river, Monterey county.
14	San Jose..................	June 11, 1797	Where the city of San Jose now is.
15	San Juan Bautista..........	June 24, 1797	On the San Juan river, San Benito co.
16	San Miguel	July 25, 1797	On the Salinas river, Monterey county.
17	San Fernando Rey..........	Sept'r 8, 1797	Twenty miles N. W. from Los Angeles.
18	San Luis Rey de Francia ...	June 13, 1798	Thirteen and a half leagues from San Diego.
19	Santa Inez	Sept'r 17, 1804	Twelve leagues from Santa Barbara.
20	San Rafael....	Dec'r 14, 1819	North of San Francisco Bay, Marin co.
21	San Francisco de Solano.....	Aug't 25, 1823	Sonoma, Sonoma county.

SAN CARLOS DE MONTEREY ESTABLISHED.*

1770.—The third attempt to establish a settlement at Monterey proved successful, as heretofore noticed. The following extract from a letter of the leader of the expedition to Father Francisco Palou, gives a graphic account of the ceremonies attending the formal founding of the Mission of San Carlos de Monterey, by Padre Junipero Serra, on that memorable day, June 3, 1770.

"On the 31st of May, 1770, by favor of God, after rather a painful voyage of a month and a half, the packet *San Antonio*, commanded by Don Juan Perez, arrived and anchored in this beautiful port of Monterey, which is unadulterated in any degree from what it was when visited by the expedition of Don Sebastian Viscaiño, in 1620. It gave me great consolation to find that the land expedition had arrived eight days before us, and that Father Crespi and all others were in good health. On the 3d of June, being the holy day of Pentecost, the whole of the officers of sea and land, and all the people, assembled on the bank at the foot of an oak, where we caused an altar to be erected, and the bells rang; we then chanted the *veni Creator*, blessed the water, erected and blessed a grand cross, hoisted the royal standard, and chanted the first mass that was ever performed in this place; we afterwards sung the *Salve* to Our Lady before an image of the illustrious Virgin, which occupied the altar; and at the same time preached a sermon, concluding the whole with a *Te Deum*. After this the officers took possession of the country in the name of the King, (Charles III.) our Lord, whom God preserve. We then all dined together in a shady place on the beach; the whole ceremony being accompanied by many volleys and salutes by the troops and vessels."

THE MISSION OF SAN ANTONIO.*

1771.—This mission was founded by Padre Junipero Serra, July 14, 1771, and is situated about twelve leagues south of Soledad, in Monterey County, on the border of an inland stream upon which it has conferred its name The buildings were inclosed in a square, 1,200 feet on each side, and walled with adobes. Its lands were forty-eight leagues in circumference, including seven farms, with a convenient house and chapel attached to each. The stream was conducted in paved trenches twenty miles for purposes of irrigation; large crops rewarded the husbandry of the padres. In 1822 this mission owned 52,800 head of cattle, 1,800 tame horses, 3,000 mares, 500 yoke of working oxen, 600 mules, 48,000 sheep, and 1,000 swine. "The climate here is cold in winter and intensely hot in summer. This mission on its secularization fell into the hands of an administrator who neglected its farms, drove off its cattle, and left its poor Indians to starve."—*Walter Colton's Three Years in California.*

The mission grapes were very sweet; wine and aguardiente were made from them in early days, and the grapes were brought to Monterey for sale. The vineyard and garden walls are now gone, and the cattle have destroyed the vines; many of the buildings are down, and the tiles have been removed to roof houses on some of the adjoining ranches. The church is still in good repair. There was formerly a good grist-mill at the mission, but that also, like the mission, is a thing of the past.

THE MISSION OF SOLEDAD.

1791.—Mission Soledad was founded October 9, 1791, and is situated fifteen leagues southwest of Monterey on the left bank of the Salinas River, in a fertile plain known by the name of the "Llano del Rey." The priest was an indefatigable agriculturist. To obviate the summer drought, he constructed, through the labor of his Indians, an aqueduct extending fifteen miles, by which he could water 20,000 acres.

IMMENSE BANDS OF CATTLE.

In 1826 the mission owned about 36,000 head of cattle, and a greater number of horses and mares than any other mission in the country.

So great was the reproduction of these animals that they were not only given away, but also driven in bands into the Bay of Monterey, in order to preserve the pasturage for the cattle. It had about 70,000 sheep and 300 yoke of tame oxen.

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*An extended history of these missions will be found in the "History of Monterey County," by Elliott & Co.

In 1819 the major-domo of this mission gathered 3,400 bushels of wheat from thirty-eight bushels sown. Its secularization has been followed by decay and ruin.—*Walter Colton.*

The mission possessed a fine orchard of 1,000 trees, but very few were left in 1849. There was also a vineyard about six miles from the mission in a gorge of the mountains.

MISSION SAN JUAN BAUTISTA.*

1794.—This mission looms over a rich valley ten leagues from Monterey—founded 1794. Its lands swept the broad interval and adjacent hills. In 1820 it owned 43,870 head of cattle, 1,360 tame horses, 4,870 mares, colts and fillies. It had seven sheep farms, containing 69,530 sheep; while the Indians attached to the mission drove 321 yoke of working oxen. Its store-house contained $75,000 in goods and $20,000 in specie.

REIGN OF DESOLATION AT SAN JUAN.

This mission was secularized in 1834; its cattle slaughtered for the hides and tallow, its sheep left to the wolves, its horses taken by the dandies, its Indians left to hunt acorns, while the wind sighs over the grave of its last padre.—*Walter Colton.*

This melancholy picture is not too highly colored. Doubtless the secularization laws were intended to benefit the Indians of the mission, nor does it seem that they were conceived in a spirit of unfriendliness to the padres.

HOW THE BUILDING MATERIAL WAS PREPARED.

None of this building stone was found in the vicinity of San Juan Bautista, so that its church is built entirely of *adobe* (sun-dried brick) and *ladrillo*, a species of brick that was baked in a subterranean kiln. The adobe was made out of a species of soil, common to most parts of California. The material was mixed with straw, thoroughly kneaded by hand and foot, moulded into the desired dimensions, and afterwards spread upon the earth to dry in the sun, being turned twice in the process of drying, to prevent cracking. The regulation adobe was about thirty inches long by sixteen wide and four thick, and weighed fifty pounds. The bricks were made of clay, mixed and kneaded like the adobe, and baked in subterranean kilns, with a slow fire. These brick were twelve inches long by eight wide and two thick, and are wonderfully durable, as may be seen in the mission church and corridor; the floors of which (being laid with this brick) are hardly abraded by the wear and tear of three-quarters of a century.

DESCRIPTION OF MISSIONS.

The missions were usually quadrilateral buildings, two stories high, inclosing a court-yard ornamented with fountains and trees. The whole consisting of the church, father's apartments, store-houses, barracks, etc. The quadrilateral sides were each about 600 feet in length, one of which was partly occupied by the church.

And so they began their work, surrounded by beautiful scenery, but in seclusion and loneliness. They lived under the shadow of the hills. The sun rose bright and the air was mild, as now, and the music of the surf, and the roar of the ocean in times of storm—these things must have been as familiar to them as they are now to us.

But there must have been something of sublimity about them when all around was in a condition of nature, that we miss in our more artificial life.

They go about their work. They get together the Indians as soon as possible, to communicate with them. They teach them some rude approach to the arts of civilized life. They teach the men to use tools, and the women to weave.

TABLE SHOWING POPULATION OF THE MISSIONS IN YEAR 1802.
MOSTLY CHRISTIANIZED INDIANS.

DATE OF FOUNDING.	NAME OF MISSION.	MALES.	FEMALES.	TOTAL.
1769	San Diego.................	737	822	1559
1798	San Luis Rey de Francia	256	276	532
1776	San Juan Capistrano........	502	511	1013
1771	San Gabriel................	532	515	1047
1797	San Fernando..............	317	297	614
1782	San Buenaventura..........	436	502	938
1786	Santa Barbara	521	572	1093
1787	La Purissima Conception.....	457	571	1028
1772	San Luis Obispo............	374	325	699
1797	San Miguel................	309	305	614
1791	Soledad	296	267	563
1771	San Antonio de Padua.......	568	484	1052
1770	San Carlos de Monterey......	376	312	688
1797	San Juan Bautista..........	530	428	958
1794	Santa Cruz................	238	199	437
1777	Santa Clara	736	555	1291
1797	San Jose	327	295	622
1776	San Francisco..............	433	381	814
1804	Santa Inez	...	...	...
1817	San Rafael Archangel.......	...	...	...
1823	San Francisco de Solano.....	...	...	...
	Totals	7945	7617	15562

BUILDING MISSION CHURCHES.

Time passes away and we find them with a great work on their hands. It is nothing less than the building of a church. We think that to be no small undertaking even now, with all our facilities. But it is not easy for us to imagine what it was to them, with nothing but hand labor; and that of a very rude sort.

Fifteen years seems a long time to devote to the erection of a church, even when we consider the character of the laborers and the rude tools and appliances used in its construction.

But they set about it. They make adobes. They cut down the trees. They hew out the timber. By some means they get it up to the spot. No small undertaking that as we can see now by examining those very beams, in what remains of those old churches.

Nor did the hewing lack in skill and accuracy, as you can also see, and the solid adobe walls, you can measure them, and you will find them to be five feet thick. It took often several years to build a church. And so life at the mission began in earnest. Other buildings were erected as they came to be needed.

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*An extended history of these missions will be found in the "History of San Benito County," by Elliott & Co.

MISSION DAILY LIFE.

The daily routine at all the missions was very much alike and was about as follows:—

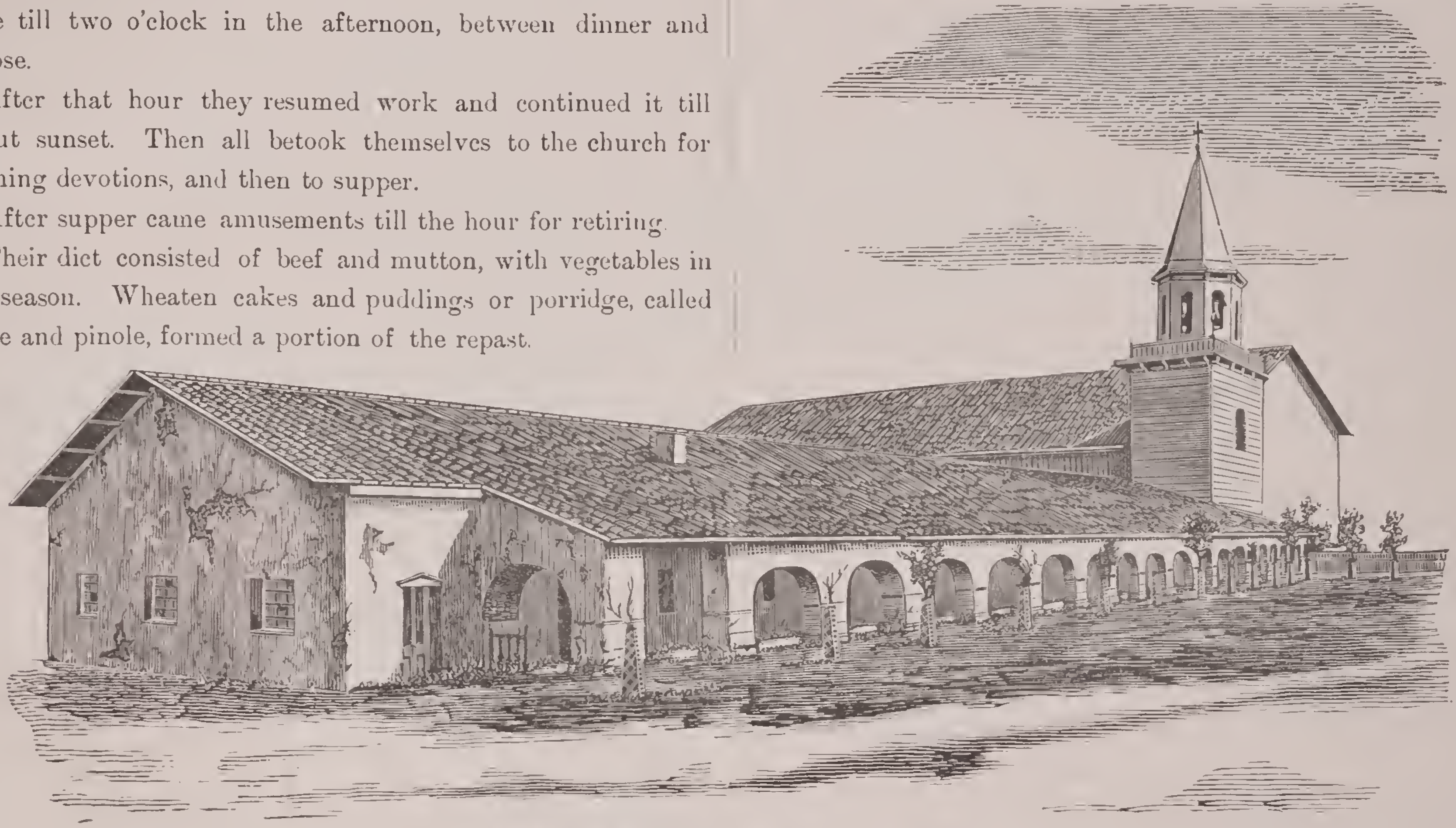
They rose at sunrise and proceeded to the church, to attend morning prayers. Breakfast followed. Then the day's work.

Towards noon they returned to the mission and passed the time till two o'clock in the afternoon, between dinner and repose.

After that hour they resumed work and continued it till about sunset. Then all betook themselves to the church for evening devotions, and then to supper.

After supper came amusements till the hour for retiring.

Their diet consisted of beef and mutton, with vegetables in the season. Wheaten cakes and puddings or porridge, called atole and pinole, formed a portion of the repast.



View of Mission Buildings at San Juan.

The dress was, for the males, linen shirt, trousers, and a blanket. The women had each two undergarments a year, a gown and a blanket.

What a dreamy secluded life it must have been, with communication with the outer world only at intervals.

LAWS FOR THE COLONISTS.

We make the following extracts from laws sent the colonists and bearing date Monterey, March 23, 1816:—

"All persons must attend mass, and respond in a loud voice, and if any person should fail to do so, without good cause, they will be put in the stocks for three hours."

"Living in adultery, gaming and drunkenness will not be allowed, and he who commits such vices shall be punished."

Another order required every colonist to possess "two yoke of oxen, two plows, two points or plowshares (see engraving of plow), two hoes for tilling the ground, and they must provide themselves with six hens and one cock."

Government Order No. 6, issued from Monterey July 20, 1798, is "to cause the arrest of Jose Arriola, and send him, under guard, so that he be at this place during the coming Sunday, from there to go to Santa Barbara, there to comply with his promise he made a young woman of that place to marry her."

The records do not inform us whether Jose fulfilled his agreement with the young lady or not!

Extract from a letter dated Monterey, June 3, 1799:—

* * * "I send you by the wife of the pensioner, Josef Brabo, one piece of cotton goods and one ounce of sewing silk. There are no combs, and I have no hope of receiving any for three years.

Hermenegildo Sal,
"Military Governor."

Just think of the colonists being without combs for three years!

DESCRIPTION OF MISSION CONVERTS.

Captain Beechey, in 1826, visited the missions, and says:—

"If any of the captured Indians show a repugnance to conversion, it is the practice to imprison them for a few days, and then allow them to breathe a little fresh air in a walk around the missions, to observe the happy mode of life of their converted countrymen; after which they are again shut up, and thus continue incarcerated until they declare their readiness to renounce the religion of their fathers."

"In the aisles and passages of the church, zealous beadles of the converted race are stationed, armed with sundry weapons of potent influence in effecting silence and attention, and which are not sparingly used on the refractory. These consist of sticks and whips, long goads, etc., and they are not idle in the hands of the officials."

"Sometimes they break their bonds and escape into their original haunts. When brought back to the mission he is always flogged and then has an iron clog attached to one of his legs, which has the effect of preventing his running away and marking him out *in terrorem* to others." Notwithstanding this dark picture, it must not be imagined that life was one of much hardship, or that they even thought so.

THE FIRST INDIAN BAPTISM.

1770.—Of those who came oftenest among them at San Diego, was an Indian about fifteen years of age, who was at last induced to eat whatever was given him without fear. Father Junipero had a desire to teach him, and after understanding a little of the language he desired him to try and bring some little one for baptism. He was told to tell the parents that by allowing a little water to be put on the head the child would become a son of God, be clothed and become equal to the Spaniards. He returned with several Indians, one of whom brought the child for baptism. Full of joy the child was clothed, and the venerable priest ordered the soldiers to attend this first baptism. The ceremony proceeded, and as the water was about to be poured the Indians suddenly snatched away the child and made off in great haste, leaving the father in amazement, with the water in his hands unused.

It was not, however, until the 26th of December, 1770, that the first baptism of the Indians was celebrated at Monterey, which turned out better than the first attempt at San Diego. But at the end of three years only 175 were baptized, showing that the Indians received civilization slowly.

MISSION OF SAN FRANCISCO.

1776.—On September 17, 1776, the presidio and mission of San Francisco were founded, on what was then the extreme boundary of California, the former in a manner being a frontier command, having a jurisdiction which extended to the farthest limits of Spanish discovery.

In its early day the whole military force in Upper California did not number more than from two to three hundred men, divided between the four presidios of San Diego, Santa Barbara, Monterey, and San Francisco, while there were but two towns or pueblos, Los Angeles and San Jose.

When Junipero Serra and his band of missionaries entered Upper California from the lower territory, they brought with them a number of horses, mules, and cattle, wherewith to stock the proposed missions. These were duly distributed, and in time asses, sheep, goats, and swine were added.

RICH MEN OF 1793.

1793.—An inventory of the rich men of the presidio of San Francisco, bearing date 1793, was discovered some years since, showing that the entire number of stock owned by fourteen wealthy Spaniards, was 115 cattle, 298 sheep and 17 mares.

These are the men who laid the foundation of these immense hordes of cattle which were wont to roam about the entire State, and who were the fathers of those whom we now term native Californians.

As year succeeded year so did their stock increase.

They recieved tracts of land "almost for the asking."

Vast bands of cattle roamed about at will over the plains and among the mountains. Once a year these had to be driven in and *rodeod, i. e.*, branded, a work of considerable danger, and one requiring much nerve. The occasion of *rodeoing*, however, was the signal for a feast; a large beeve would be slaughtered, and all would make merry until it was consumed. The rule or law concerning branded cattle in those early days was very strict.

If any one was known to have branded his neighbor's cattle with his own mark, common usage called upon him to return in kind fourfold.

Not only did this apply to cattle alone, but to all other kinds of live-stock.

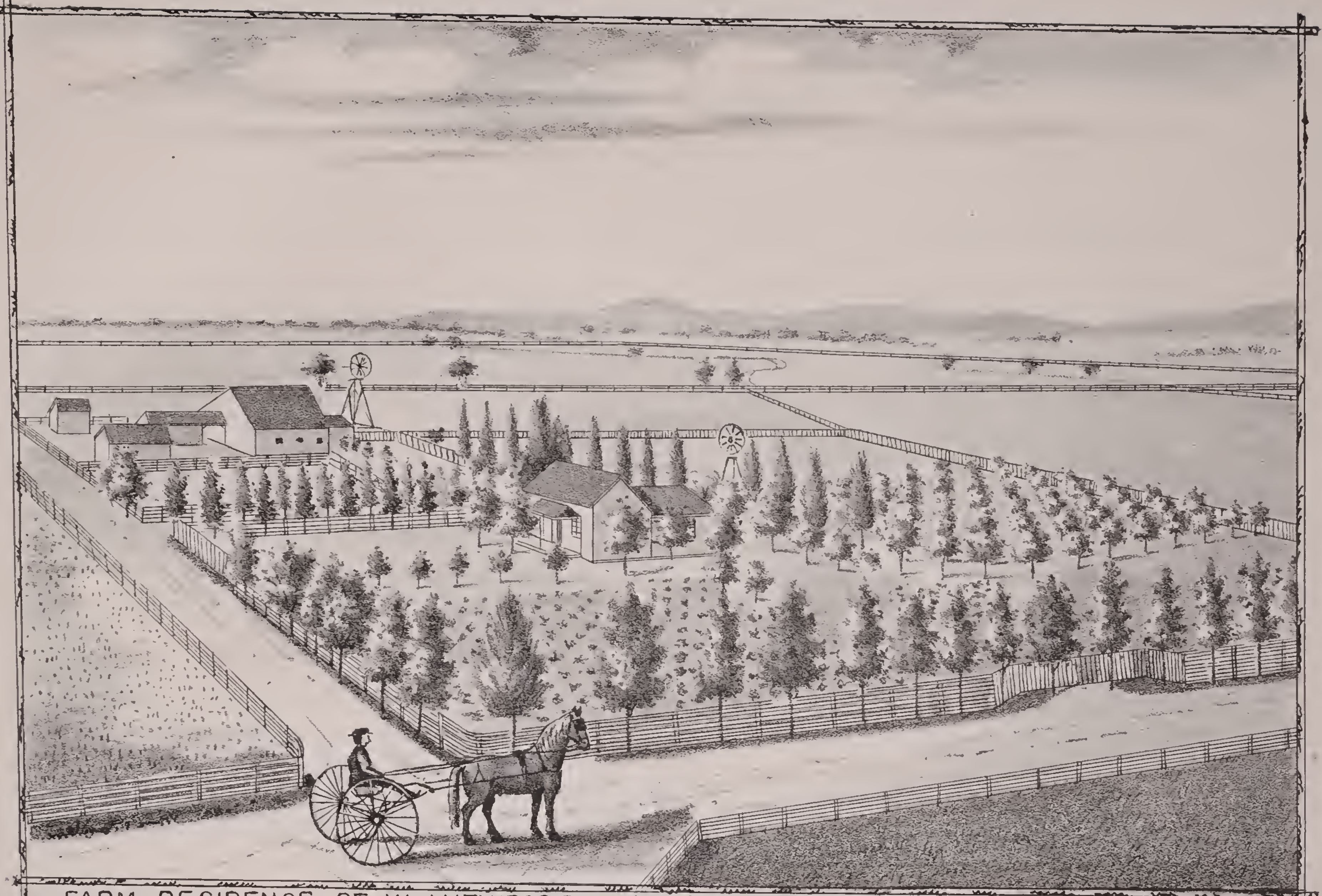
TABLE SHOWING NUMBER OF MISSION INDIANS BETWEEN 1802 AND 1822.

NAME OF MISSION.	BAPTIZED.	MARRIED.	DIED.	EXISTING.
San Diego	5,452	1,460	3,186	1,696
San Luis Rey	4,024	922	1,507	2,663
San Juan Capistrano	3,879	1,026	2,531	1,052
Santa Catarina	6,906	1,638	4,635	1,593
San Fernando	2,519	709	1,505	1,001
San Gabriel	3,608	973	2,608	973
Santa Barbara	4,917	1,288	3,224	1,010
San Buenaventura	1,195	330	896	582
Purissima Conception	3,100	919	2,173	764
San Luis Obispo	2,562	715	1,954	467
San Miguel	2,205	632	1,336	926
San Antonio de Padua	4,119	1,037	317	834
Our Lady of Soledad	1,932	584	1,333	532
San Carlos	3,267	912	2,432	341
San Juan Bautista	3,270	823	1,853	1,222
Santa Cruz	2,136	718	1,541	499
Santa Clara	7,324	2,056	6,565	1,394
San Jose	4,573	1,376	2.933	1,620
San Francisco	6,804	2,050	5,202	958
San Rafael	829	244	183	830
Totals	74,621	20,412	47,925	20,958

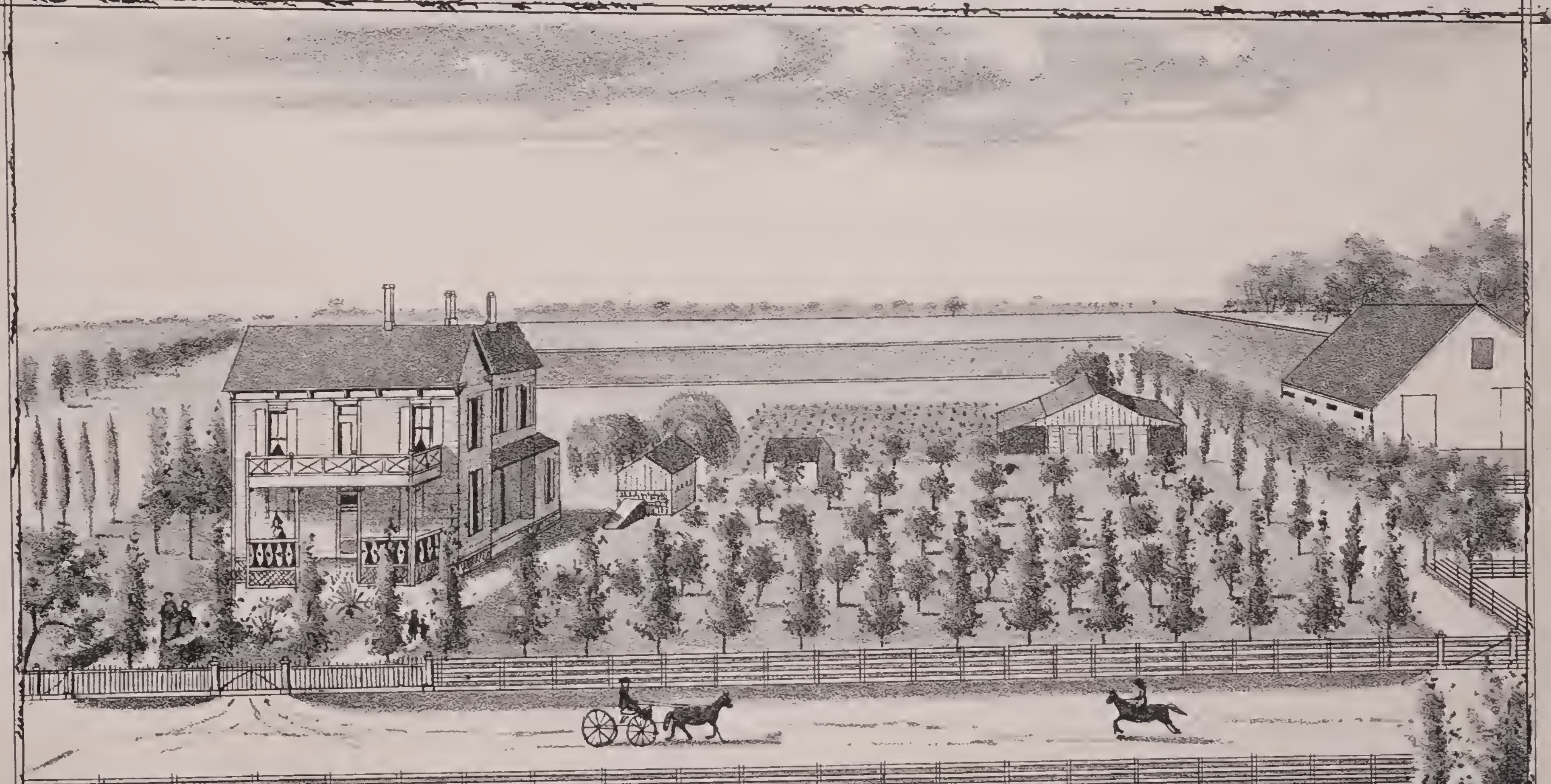
DECLINE OF THE MISSIONS.

1803.—In this year one of the missions had become the scene of a revolt; and earlier still, as we learn from an unpublished correspondence of the fathers, it was not unusual for some of the converted Indians to abandon the missions and return to their former wandering life. It was customary on those occasions to pursue the deserters, and compel them to return.

1813.—The extinction of the missions was decreed by act of the Spanish Cortez in 1813, and again in 1828; also, by the



FARM RESIDENCE OF W. J. NEWPORT. 3 MILES N. E. OF GRANGEVILLE. TULARE CO. CAL.

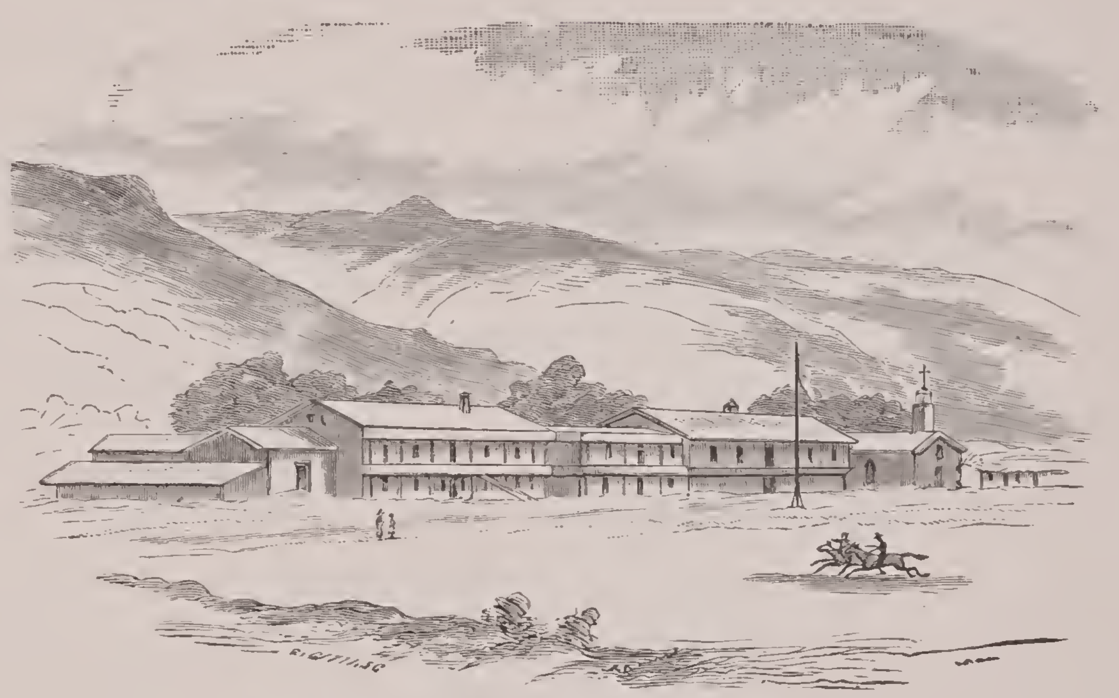


RANCH AND RESIDENCE OF JOHN H. SHORE. NEAR LEMOORE. TULARE CO. CAL.

Mexican Congress in 1833. Year after year they were despoiled of their property, until their final overthrow in 1845.

Each successive revolution in Mexico had recourse to the rich California missions for plunder.

In 1813, when the contest for national independence was being waged on Mexican territory, Spain resolved upon dispensing with the services of the fathers, by placing the missions in the hands of the secular clergy. The professed object of this secularization scheme was, indeed, the welfare of the Indians and colonists; but how little this accorded with the real intentions of the Government, is seen from the seventh section of the decree passed by the *cortes*, wherein it is stated that one-half of the land was to be hypothecated for the payment of the national debt. This decree of the Government was not carried out at the time, yet it had its effect on the state and well-being of the missions in general.



Mission Church and Buildings at Sonoma.

REIGN OF DISORDER BEGINS.

1826.—In 1826 instructions were forwarded by the Federal Government to the authorities of California for the liberationof the Indians. This was followed a few years later by another Act of the Legislature, ordering the whole of the missions to be secularized and the religious to withdraw. The ostensible object assigned by the authors of this measure, was the execution of the original plan formed by the Government. The missions, it was alleged, were never intended to be permanent establishments.

Meantime, the internal state of the missions was becoming more and more complex and disordered. The desertions were more frequent and numerous, the hostilities of the unconverted more daring, and the general disposition of the people inclined to revolt. American traders and freebooters had entered the country, spread themselves all over the province, and sowed the seeds of discord and revolt among the inhabitants. Many of the more reckless and evil-minded readily listened to their suggestions, adopted their counsels, and broke out into open hostilities.

In 1802, when Humboldt visited California, he estimated the whole population of the upper country as follows: Converted Indians, 15,562; whites and mulattoes, 1,300; total, 66,862. Wild Indians, or *bestias* (beasts), as they were called, were quite numerous, but being unbaptized were considered beneath the notice of reasonable beings.

ATTACKS ON SEVERAL MISSIONS.

Their hostile attack was first directed against the mission of Santa Cruz, which was captured and plundered, when they directed their course to Monterey, and, in common with their American friends, attacked and plundered that place. From these and other like occurrences, it was clear that the condition of the missions was one of the greatest peril. The spirit of discord had spread among the people, hostility to the authority of the fathers had become common, while desertion from the villages was of frequent and almost constant occurrence.

SECULARIZATION OF THE MISSIONS.

1833.—The Mexican Congress passed a bill to secularize the missions in Upper and Lower California, August 17, 1833. This took away from the friars the control of the mission property, placing it in charge of administrators; it gave the civil officers predominance over the priestly class. The President of the Republic issued his instructions to Governor Figueroa, of California, who in turn, August 9, 1834, issued a decree that in August, 1835, ten of the missions would be converted into pueblos or towns. A portion of the mission property was then divided among the resident Indians, and the decree issued for the liberation of all the Indians was immediately put in force. The dispersion and demoralization of the people were the immediate results. Released from all restraint, the Indians proved idle, shiftless, and dissipated, wholly incapable of self-control, and a nuisance both to themselves and to every one with whom they came in contact. Within eight years after the execution of the decree, the number of Christains diminished from 30,650 to 4,450!

A REVIEW OF THE MISSIONS.

At the end of sixty-five years, Hon. John W. Dwinelle tells us, in *Centennial Memoirs*, page 89, that the missionaries of Upper California found themselves in possession of twenty-one prosperous missions, planted upon a line of about 700 miles, running from San Diego north to the latitude of Sonoma. More than 30,000 Indian converts were lodged in the mission buildings, receiving religious culture, assisting at divine worship, and cheerfully performing their easy tasks. Over 700,000 cattle of various species, pastured upon the plains' as well as 60,000 horses. One hundred and twenty thousand bushels of wheat were raised annually, which, with maize, beans, peas, and the like, made up an annual crop of 180,000 bushels; while, according to the climate, the different missions rivaled each other in the production of wine, brandy' soap, leather, hides, wool, oil, cotton, hemp, linen, tobacco, salt and soda.

Of 200,000 horned cattle annually slaughtered, the missions furnished about one-half, whose hides, hoofs, horns and tallow were sold at a net result of $10 each, making $1,000,000 dollars from that source alone; while the other articles of which no definite statistics can be obtained, doubtless reached an equal value, making a total production by the missions themselves of $2,000,000.

RAPID DECLINE OF CONVERTS.

It will thus be observed that out of the 74,621 converts received into the missions, the large number of 47,925 had succumbed to disease. What the nature of this plague was it is hard to establish; the missionaries themselves could assign no cause. It was, in all probability, caused by a sudden change in their lives from a free, wandering existence, to a state of settled quietude.

EARLY COLONIZATION PARTY.

1834.—During the year 1834, one Jose Maria Hijar was dispatched from Mexico with a colonization party, bound for Upper California. The ship touched at San Diego, and here a portion of the party disembarked. The remainder proceeded to Monterey, and, a storm arising, their ship was wrecked upon the beach. Hijar now presented his credentials, and was astonished to find that a messenger overland from Mexico had already arrived bringing news of Santa Ana's revolution, together with dispatches from the new president revoking his (Hijar's) appointment; and continuing to keep Figueroa in office.

In the bitter discussion that followed, it came out that Hijar had been authorized to pay for his ship, the *Natalia,** in *mission tallow;* that the colonists were organized into a company, duly authorized to take charge of the missions, squeeze out of them the requisite capital, and control the business of the territory. The plan had miscarried by a chance, but it showed the missionaries what they had to expect.

With the energy born of despair, eager at any cost to outwit those who sought to profit by their ruin, the mission fathers hastened to destroy that, which through more than half a century, thousands of human beings had spent their lives to accumulate.

TABLE EXPLAINING THE CONTRAST BETWEEN THE ADMINISTRATION OF THE MISSIONS BY THE FATHERS IN 1834 AND THAT OF THE CIVIL AUTHORITIES IN 1842.

NAMES OF THE MISSIONS.	NUMBER OF INDIANS.		NUMBER OF HORNED CATTLE.		NUMBER OF HORSES.		NO. OF SHEEP, GOATS AND SWINE.		HARVEST BUSHELS.
	1834.	1842.	1834.	1842.	1834.	1842.	1834.	1842.	1834.
San Diego..	2,500	500	12,000	20	1,800	100	17,000	200	13,000
San Louis Rey..................	3,500	650	80,000	2,800	10 000	400	100,000	4,000	14,000
San Juan Capistrano	1,700	100	70,000	500	1,900	150	10,000	200	10,000
San Gabriel.........	2,700	500	105,000	700	20,000	500	40,000	3,500	20,000
San Fernando..................	1,500	400	14,000	1,500	5,000	400	7,000	2,000	8,000
San Buenaventura............	1,100	300	4,000	200	1,000	40	6,000	400	3,000
Santa Barbara......	1,200	400	5,000	1,800	1,200	180	5,000	400	3,000
Santa Inez.....	1,300	250	14,000	10,000	1,200	500	12,000	4,000	3,500
La Purissima Conception	900	60	15,000	800	2,000	300	14,000	3,500	6,000
San Luis Obispo	1,250	80	9,000	300	4,000	200	7,000	800	4,000
San Miguel......	1,200	30	4,000	40	2,500	50	10,000	400	2,500
San Antonio	1,400	150	12,000	800	2.000	600	14,000	2,000	3,000
Nostra Senora de la Soledad. .	700	20	6,000	......	1,200	....	7,000	......	2,500
Mission del Carmel......... ...	500	40	3,000	......	700	... .	7,000	......	1,500
San Juan Bautista...	1,450	80	9,000	......	1,200	.....	9,000	......	3,500
Santa Cruz	600	50	8,000	.. ..	800	... .	10,000	......	2,500
Santa Clara	1,800	300	13,000	1,500	1,200	250	15,000	3,000	6,000
San Jose........	2,300	400	2,400	8,000	1,100	200	19,000	7,000	10,000
Dolores de San Francisco.......	500	50	5,000	60	1,600	50	4,000	200	2,500
San Rafael.......	1,250	20	3,000	......	500	....	4,500	.....	1,500
San Francisco Solano........ .	1,300	70	3.000	......	700	....	4,000	.....	3,000
Totals....................	30,650	4,450	396,400	29,020	32,600	3,820	321,500	31,600	123,000

GREAT SLAUGHTER OF CATTLE.

Hitherto, cattle had been killed only as their meat was needed for use; or, at long intervals perhaps, for the hides and tallow alone, when an overplus of stock rendered such action necessary. Now they were slaughtered in herds. There was no market for the meat, and this was considered worthless. The creature was lassoed, thrown, its throat cut; and while yet writhing in the death agony its hide was stripped and pegged upon the ground to dry. There were no vessels to contain the tallow, and this was run into great pits dug for that purpose, to be spaded out anon, and shipped with the hides to market.

Whites and natives alike revelled in gore, and vied with each other in destruction. So many cattle were there to kill, it seemed as though this profitable and pleasant work must last forever. The white settlers were especially pleased with the turn affairs had taken, and many of them did not scruple unceremoniously to appropriate large herds of young cattle wherewith to stock their ranches. Such were the scenes being enacted on the plains.

MISSION BUILDINGS DESTROYED.

At all the missions a similar work was going on. The outer buildings were unroofed, and the timber converted into firewood. Olive groves and orchards were cut down; shrubberies and vineyards torn up. Where the axe and vandal hands failed, fire was applied to complete the work of destruction. Then the solitary bell left hanging on each solitary and dismantled church, called their assistants to a last session of praise and prayer, and the worthy padres rested from their labors.

When the government administrators came, there was but little left; and when they went away, there was *nothing.*

MISSIONS ORDERED ABANDONED.

1845.—A proclamation of Governor Pico, June 5, 1845, provides:—

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* The identical vessel in which Napoleon escaped from the Isle of Elba—1815.

1. That the governer should call together the neophytes of the following-named missions: San Rafael, Dolores, Soledad, San Miguel and La Purissima; and in case those missions were abandoned by their neophytes, that he should give them one month's notice, by proclamation, to return and cultivate said missions, which if they did not do, the missions should be declared abandoned, and the Assembly and governor dispose of them for the good of the Department.

2. That the missions of Carmel, San Juan Bautista, San Juan Capistrano and San Francisco Solano, should be considered as *pueblos*, or villages, which was their present condition; and that the property which remained to them, the governor, after separating sufficient for the curate's house, for churches and their pertinents, and for a municipal house, should sell at public auction, the product to be applied, first to paying the debts of the establishments, and the remainder, if any, to the benefit of divine worship.

3. That the remainder of the missions to San Diego, inclusive, should be rented at the discretion of the governor.

SALE OF THE MISSIONS.

1845.—On the 28th of October of this year, Governor Pico gave public notice for the sale to the highest bidder of five missions, viz: San Rafael, Dolores, Soledad, San Miguel and La Purissima; likewise for the sale of the remaining buildings in the pueblos (formerly missions) of San Luis Obispo, Carmel, San Juan Bautista, and San Juan Capistrano, after separating the churches and their appurtenances, and a curate's, municipal and school house. The auctions were appointed to take place, those of San Luis Obispo, Purissima and San Juan Capistrano, the first four days of December following (1845); those of San Rafael, Dolores, San Juan Bautista, Carmel, Soledad and San Miguel, the 23d and 24th of January, 1846; meanwhile, the Government would receive and take into consideration proposals in relation to said missions.

The final disposition of the missions at the date of 1846 will be seen in the following:—

TABLE SHOWING THE FINAL DISPOSITION OF MISSIONS.

No.	Name of Mission.	How Disposed of by the Government.
1	San Diego	Sold to Santiago Arguello, June 8, 1846.
2	San Luis Rey	Sold to Antonio Cot and Andres Pico, May 13, 1846.
3	San Juan Capistrano	Pueblo, and remainder sold to John Foster and James McKinley, December 6, 1845.
4	San Gabriel	Sold to Julian Workman and Hugo Reid, June 18, 1846.
5	San Fernando	Rented to Andres Pico, for nine years from December, 1845, and sold to Juan Celis, June, 1846.
6	San Buenaventura	Sold to Joseph Arnaz.
7	Santa Barbara	Rented for nine years, from June 8, 1846, to Nich's Den.
8	Santa Ynes	Rented to Joaquin Carrillo.
9	La Purisima	Sold to John Temple, December 6, 1845.
10	San Luis Obispo	Pueblo.
11	San Miguel	Uncertain.
12	San Antonio	Vacant.
13	Soledad	House and garden sold to Sobranes, January 4, 1846.
14	Carmel de Monterey	Pueblo.
15	San Juan Bautista	Pueblo.
16	Santa Cruz	Vacant.
17	Santa Clara	In charge of priest.
18	San Jose	In charge of priest.
19	Dolores, (San Francisco)	Pueblo.
20	San Rafael	Mission in charge of priest.
21	San Francisco Solano	Mission in charge of priest.

Industries of Early Times.

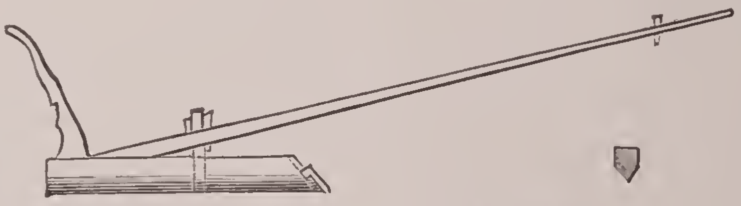
Farming in California was in a very primitive state up to its occupation by the Americans. What farming the Californians did was of a very rude description; their plow was a primitive contrivance, their vehicles unwieldy. Such articles of husbandry as reapers, mowers and headers had not entered their dreams, and they were perfectly independent of their advantages.

Grain was cut with a short, stumpy, smooth-edged sickle; it was threshed by the tramping of horses. One of their few evils was the depredations of the wild Indians, who would sometimes steal their horses, and then the cattle would have to perform the work of separation. The cleaning of grain was performed by throwing it in the air with wooden shovels, and allowing the wind to carry off the chaff.

In a work published in London in 1839, by Alexander Forbes, are some interesting descriptions of the country about the Bay of Monterey, and the condition of farming as witnessed by him in 1835.

PLOW USED BY CALIFORNIANS.

The plow used at that time must have been of great antiquity. It was composed of two principal pieces; one, called the main piece, was formed out of a crooked branch of timber, cut from a tree of such a natural shape. This plow had only one handle, and no mould-board or other contrivance for turning over the furrow, and was, therefore, only capable of making a simple cut, equal on both sides.



Plow Used by Native Californians.

The only iron about the plow was a small piece fitted to the point of the stile, and of the shape seen in the detached part of the engraving. The beam was of great length, so as to reach the yoke of the oxen. This beam was also composed of a natural piece of wood, cut from a tree of proper dimensions, and had no dressing, except taking off the bark. This beam was inserted into the upper part of the main piece, and connected with it by a small upright piece of wood, on which it slides, and is fixed by two wedges; by withdrawing these wedges the beam was elevated or lowered, and depth of furrow regulated.

The long beam passes between the two oxen, like the pole of a carriage, and no chain is used. A pin is put through the point of the beam, and the yoke is tied to that by thongs of rawhide. The plow-man goes at one side, holding the handle with his right hand, and managing the goad and cattle with his left. The manner of yoking the oxen was by putting the yoke (a straight stick of wood) on the top of the head, close behind the horns, and tied firmly to their roots and to the forehead by thongs, so that, instead of drawing by the shoulders, as with us now, they drew by the roots of the horns and forehead. They had no freedom to move their heads, and went with the nose turned up, and seemed to be in pain.

With this plow only a sort of a rut could be made, and the soil was broken by successive crossing and recrossing many times. Plowing could only be done after the rains came, and an immense number of plows had to be employed.

MODERN FARMING TOOLS UNKNOWN.

The harrow was totally unknown, and a bush was drawn over the field to cover in the seed; but in some places a long, heavy log of wood was drawn over the field, something of the plan of a roller, but dragging without turning round, so as to carry a portion of the soil over the seed.

INDUSTRIES OF NATIVE CALIFORNIANS.

The Californians were not without their native manufactures, and they did not, as is generally supposed, rely altogether upon the slaughter of cattle and the sale of hides and tallow. The missionaries had taught them the cultivation of the grape and manufacture of wine. Hemp, flax, cotton and tobacco were grown in small quantities. Soap, leather, oil, brandy, wool, salt, soda, harness, saddles, wagons, blankets, etc., were manufactured.

Of California it may be truly said, that before the admission of foreign settlers, neither the potato nor green vegetables were cultivated as articles of food.

DAIRYING IN EARLY TIMES.

The management of the dairy was totally unknown. There was hardly any such thing in use as butter and cheese. The butter was an execrable compound of sour milk and cream mixed together; the butter being made of the cream on top of the milk, and a large portion of the sour, beat up together by hand, and without a churn. It was of a dirty gray color, and very disagreeable flavor, and always rancid.

They had an awkward way of milking, as they thought it absolutely necessary to use the calf to induce the cow to give milk; so they let the calf suck for some time alone, and then lay hold of the teats as they could, while the calf was still sucking, and by a kind of stealth procured a portion of the milk.

The supercargo of a British ship from India, bound to the coast of Mexico, informed Alexander Forbes* in 1832, that on making the coast of California, they touched at the Russian settlement, called La Bodega (Sonoma County), and which borders on the Spanish territory—or rather of right belongs to it, and although the part which the Russians possess is sterile in comparison to the fine plains occupied by the Spaniards, yet they found immediately on their arrival a present sent on board by the Russian Governor, of most excellent butter, fat mutton, and good vegetables, all things most desirable to people arriving from a long voyage. They soon proceeded to Monterey, the capital of Spanish California, where they could find nothing but bull beef; neither bread, butter, cheese, or vegetables could be procured. As late as 1834 Monterey was supplied with butter and cheese from the Russian settlement at Bodega.

PRIMITIVE THRESHING SCENE.

When the crops were ripe, they were cut with a sickle, or any other convenient weapon, and then it became necessary to thresh them. Now for the *modus operandi*. The floor of the corral into which it was customary to drive the horses and cattle in order to lasso them, from constant use had become hardened. Into this inclosure the grain would be piled, and upon it the *manatha*, or band of mares, would be turned loose to tramp out the grain. The wildest horses would be turned adrift upon the pile of straw, when would ensue a scene of the wildest confusion; the excited animals being driven, amidst the yelling of the *vaqueros* and the cracking of whips, here, there, and everywhere, around, across, and lengthwise, until the whole was trampled, leaving naught but the grain and chaff.

The most difficult part of the operation, however, was the separating of the grain from the chaff. Owing to the length of the dry season, there was no urgent haste to effect this; therefore when the wind was high enough, the Indians, who soon fell into the ways of the white pioneers, more especially where they were paid in kind and kindness, would toss the trampled mass into the air with large wooden forks, cut from the adjacent oaks, and the wind carried away the lighter chaff, leaving the heavier grain. With a favorable wind, several bushels of wheat could thus be winnowed in the course of one day.

How insignificant this scene appears when contrasted with a San Joaquin farmer's outfit of a 24-horse reaper and thresher combined, which is fully described further on in this work, and represented in several engravings.

GOLDEN AGE OF NATIVE CALIFORNIANS.

Mr. William Halley says: From 1833 to 1850 may be set down as the golden age of the native Californians. Not till then did the settlement of the rancheros become general. The missions were breaking up, the presidios deserted, the population dispersed, and land could be had almost for the asking. Never before, and never since, did a people settle down under the blessings of more diverse advantages.

The country was lovely, the climate delightful; the valleys were filled with horses and cattle; wants were few, and no one dreaded dearth. There was meat for the pot and wine for the cup, and wild game in abundance. No one was in a hurry. "Bills payable" or the state of the stocks troubled no one, and Arcadia seems to have temporarily made this her seat. The people did not, necessarily, even have to stir the soil for a livelihood, because the abundance of their stock furnished them

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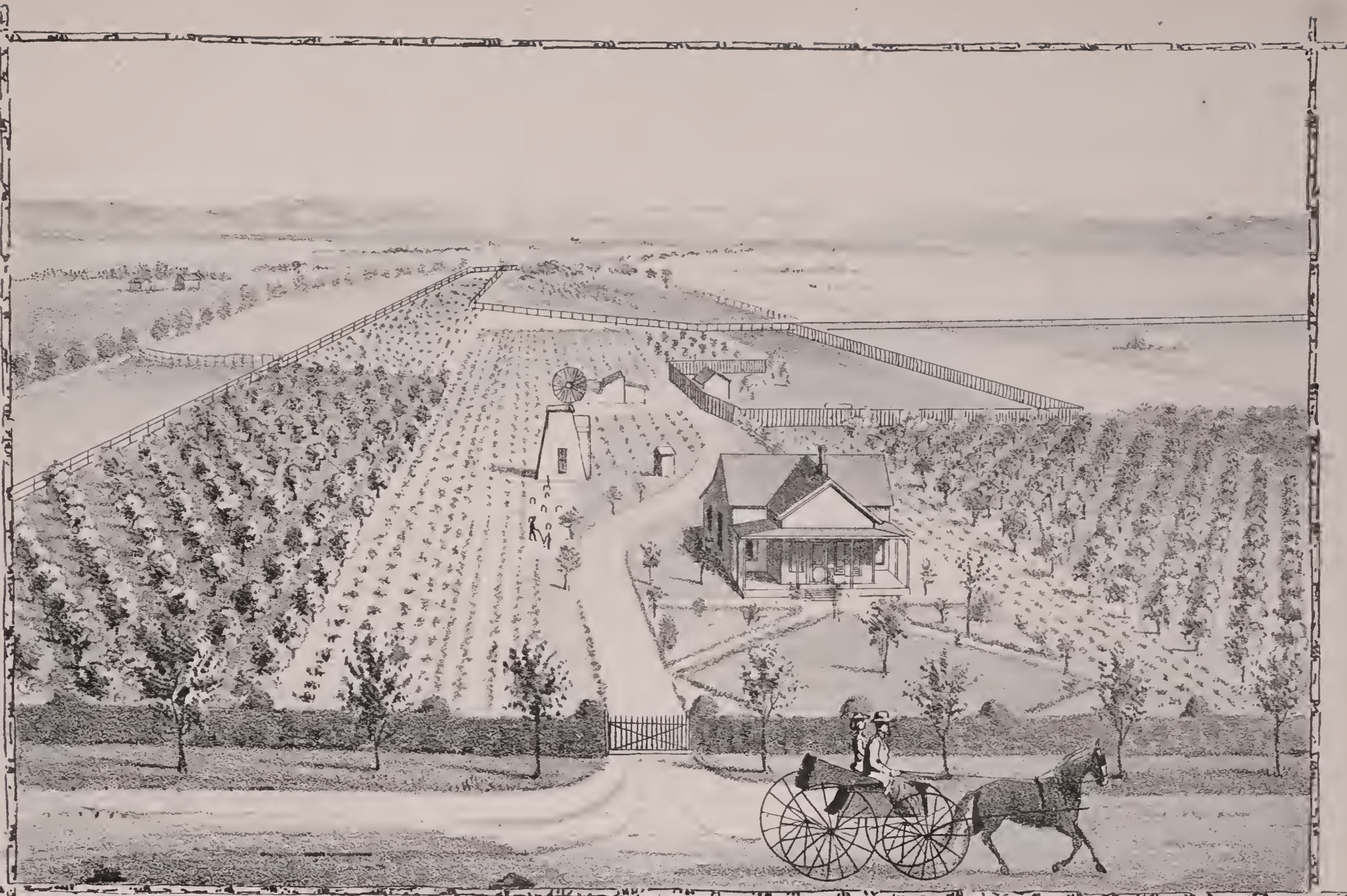
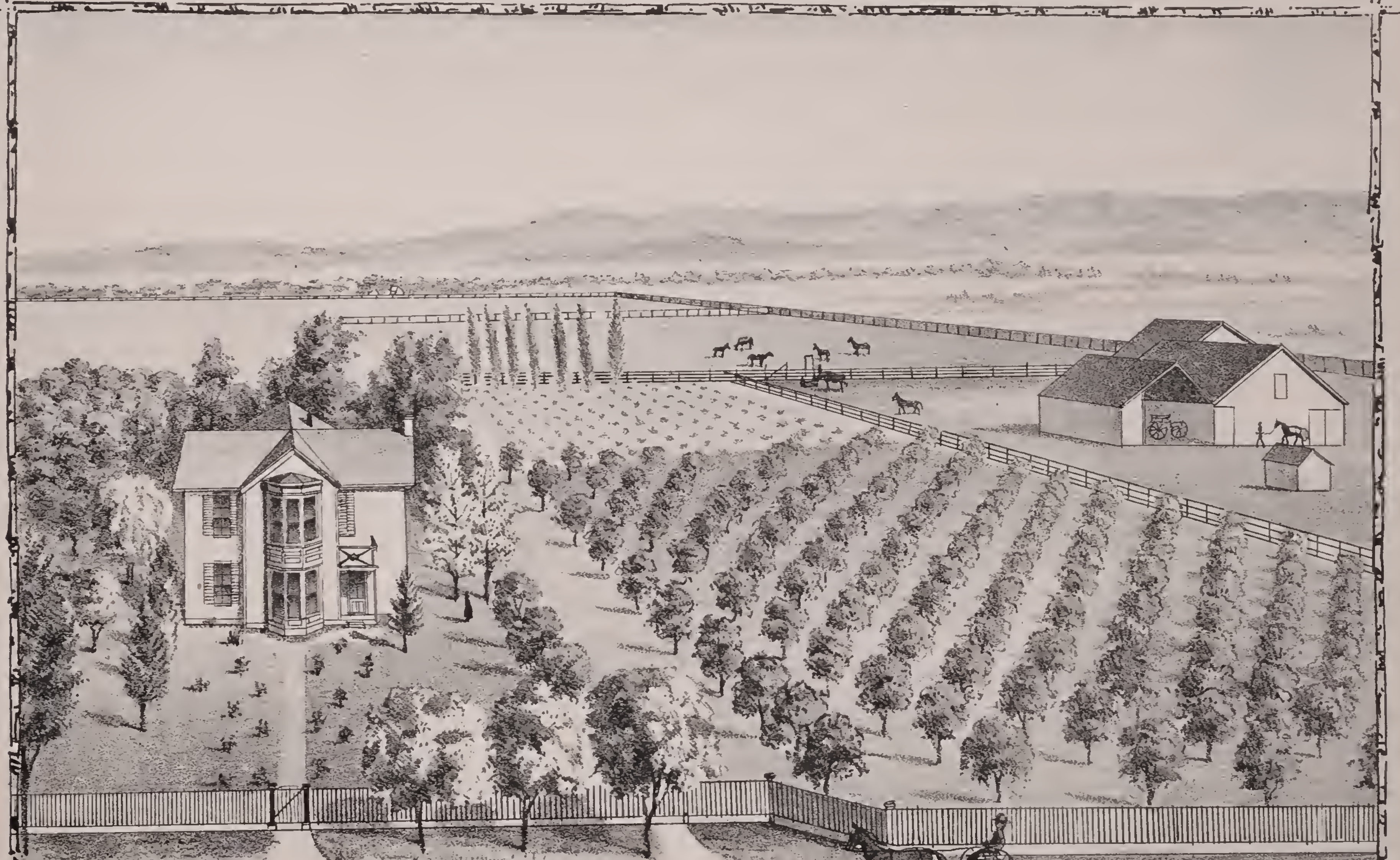
* Now a resident of Oakland. See Biography, page 31.



"JULIAN FRUIT FARM," SOUTH OF GRANGEVILLE, GEORGE THYARKS, PROP.

ELLIOTT, LITH 421 MONT ST.



ELLIOTT. LITH. MONT. ST.

RESIDENCE & RANCH OF C. RAILSBACK, WEST OF GRANGEVILLE, CAL.

with food and enough hides and tallow to procure money for every purpose. They had also the advantage of cheap and docile labor in the Indians, already trained to work at the missions. And had they looked in the earth for gold, they could have found it in abundance.

They were exceedingly hospitable and sociable. Every guest was welcomed. The sparsity of the population made them rely on each other, and they had many occasions to bring them together.

SCENES OF FESTIVITY AND GAYETY.

Church days, bull-fights, *rodeos*, were all occasions of festivity. Horsemanship was practiced as it was never before out of Arabia; dancing found a ball-room in every house, and music was not unknown. For a *caballero* to pick up a silver coin from the ground at full gallop, was not considered a feat; and any native youth could perform the mustang riding which was lately accomplished with such credit by young Peralta, in New York. To fasten down a mad bull with a *lariat*, or even subdue him single-handed in a *corral*, were every-day performances. The branding and selecting of cattle in *rodeos* was a gala occasion.

While the young men found means to gratify their tastes for highly-wrought saddles and elegant bridles, the women had their fill of finery, furnished by the Yankee vessels that visited them regularly for trade every year. Few schools were established, but the rudiments of education were given at home. The law was administered by Alcaldes, Prefects, and Governor. Murder was very rare, suicide unknown, and San Francisco was without a jail.

FAVORITE NATIVE LIQUOR.

Wine was plentiful, and so was brandy. There was a native liquor in use, that was very intoxicating. It was a sort of cognac, which was very agreeable and very volatile, and went like a flash to the brain. It was expensive, and those selling it made a large profit. This liquor was known as *aguadiente*, and was the favorite tipple until supplanted by the whisky of the Americanos. It was mostly made in Los Angeles, where the larger part of the grapes raised were used for it.

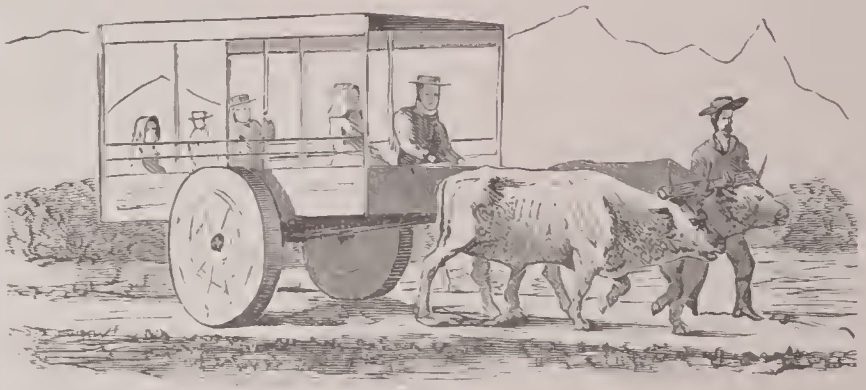
THE ADOBE RESIDENCES.

The walls were fashioned of large sun-dried bricks, made of that black loam known to settlers in the Golden State as adobe soil, mixed with straw, with no particularity as to species, measuring about eighteen inches square and three in thickness; these were cemented with mud, plastered within with the same substance, and whitewashed when finished. The rafters and joists were of rough timber, with the bark simply peeled off and placed in the requisite position; while the residences of the wealthier classes were roofed with tiles of a convex shape, placed so that the one should overlap the other, and thus make a water-shed; or, later, with shingles, the poor contenting themselves with a thatch of *tule*, fastened down with thongs of bullock's hide. The former modes of covering were expensive, and none but the opulent could afford the luxury of tiles. When completed, however, these mud dwellings will stand the brunt and wear and tear of many decades, as can be evidenced by the number which are still occupied.

There were occasional political troubles, but these did not much interfere with the profound quiet into which the people had settled. The change from a monarchy into a republic scarcely produced a ripple. The invasions of the Americans did not stir them very profoundly. But they have received such a shock in their slumbers that they, too, like their predecessors, the Indians, are rapidly passing away.

SPANISH OX-CART.

The form of the ox-cart was as rude as that of the plow The pole was of very heavy dimensions, and fastened to the yoke and oxen the same as the plow. The animals had to bear the weight of the load on their heads. This added greatly to the distress of the poor animals, as they felt every jerk and twist of the cart in the most sensitive manner; and as the roads were full of ruts and stones, it is a wonder that the animals' heads were not twisted off.



Old Fashioned Spanish Ox-Cart.

The wheels of this cart were of the most singular construction. They had no spokes and were made of three pieces of timber. The middle piece was hewn out of a large tree, of size to form the nave and middle of the wheel, all in one. The other two pieces were made of timber bent and joined by keys of wood. There does not enter into the construction of this cart a particle of iron, not even a nail, for the axle is of wood and the lynch-pin of the same material.

Walter Colton says: "The ox-cart of the Californian is quite unique and primitive. The wheels are cut transversely from the butt end of a tree, and have holes through the center for a huge wood axle, as seen in our engraving. The oxen draw by the head and horns instead of the chest; and they draw enormous loads.

"On gala days it was swept out and covered with mats: a deep body put on, which is arched with hoop-poles, and over these a pair of sheets are extended for a covering. Into this the ladies are tumbled with the children, and they start ahead."

An old settler writes to us that "Many of our people will recollect the carts used in early days by the Californians. They usually traveled from place to place on horseback; but when the family desired to visit a neighbor or go to town, the family coach was called into use. The vehicle consisted of two immense wooden wheels, cut or sawed off a log, with holes as near the center as convenient for the axle-tree, with a tongue lashed to the axle with rawhide thongs. Upon this a frame, as wide as the wheels would permit, and from seven to twelve feet in length, was placed, upon which was securely fastened one or two rawhides with the flesh side down, and a rude frame over the top, upon which to stretch an awning, with rawhide thongs woven around the sides to keep the children from tumbling out.

"The female portion of the family, with the small children, would seat themselves in the cart, to which was attached a pair of the best traveling oxen on the ranch. An Indian would drive, or rather lead the oxen (for he usually walked ahead of them). In this simple, rude contrivance the family would travel twenty or thirty miles in a day with as much comfort, apparently, as people now take in riding in our modern vehicles. Sometimes several families would ride in a single cart, and visit their friends, go to town for the purpose of shopping, or to attend church, etc."

SPANISH GRIST-MILL.

Wheat and corn were generally ground or pounded in the common hand stone mortar; but in larger settlements horse-power was used in turning or rolling one large stone upon another, as shown in the engraving on page 35.

Water-power mills for grinding flour in Upper California were but few, and of the most primitive description; but none better are to be found in the other parts of Spanish America not even in Chili where wheat abounds. These mills consist of an upright axle, to the lower end of which is fixed a horizontal water-wheel placed under the building, and to the upper end of the mill-stone; and as there is no intermediate machinery to increase the velocity, it is evident that the mill-stone can make only the same number of revolutions as the water-wheel. This makes it necessary that the wheel should be of very small diameter, otherwise no power of water thrown upon it could make it go at a rate sufficient to give the mill-stone the requisite velocity. It is therefore made of very small dimensions, and is constructed in the following manner: A set of what is called *cucharas* (spoons) is stuck in the periphery of the wheel which serve in place of float-boards; they are made of pieces of timber in something of the shape of spoons, the handles being inserted in mortises on the edge of the wheel, and the bowls of the spoons made to receive the water, which spouts on them laterally and forces the small wheel around with nearly the whole velocity of the water which impinges upon it. Of this style of mill even there were not more than three in all California as late as 1835.

Russian Settlements in Sonoma.

1811.—In January, 1811, Alexander Koskoff, took possession of the country about Bodega, Sonoma County, on the fragile pleas that he had been refused a supply of water at Yerba Buena, and that he had obtained, by right of purchase from the Indians, all the land lying between Point Reyes and Point Arena, and for a distance of three leagues inland. Here he remained for a while, and to Bodega gave the name of Romanzoff, calling the stream now known as Russian River, Slavianka.

Although repeatedly ordered to depart by the King of Spain, who claimed all the territory north of Fuca Straits, they continued to remain for a lengthened period, possessors of the land.

FIRST PIONEER SQUATTERS.

And as General Vallejo remarks: "As the new-comers came without permission from the Spanish Government, they may be termed the pioneer 'squatters' of California." So far indeed was it from the intention of the unwelcome Muscovite to move, that we find them extending their trapping expeditions along the coast, to the north and south, and for a considerable distance inland.

At Fort Ross, in Sonoma County, they constructed a quadrilateral stockade, which was deemed strong enough to resist the possible attacks of Spaniards or Indians. It had within its walls quarters for the commandant, officers, and men, an arsenal, store-houses, a Greek church, surmounted with a cross and provided with a chime of bells.

ONE OF THE FIRST ORCHARDS.

About a mile distant from the fort there was an inclosure containing about five acres, which was inclosed by a fence about eight feet high, made of redwood slabs about two inches in thickness, these being driven into the ground, while the tops were nailed firmly to girders extending from post to post, set about ten feet apart. Within the inclosure there was an orchard, consisting of apple, prune, and cherry trees. Of these, fifty of the first and nine of the last-named, moss-grown and gray with age, still remain, while it is said that all the old stock of German prunes in California came from seed produced there.

FIRST INDUSTRY NORTH OF SAN FRANCISCO.

We may safely assert, that to these Russians belongs the honor of erecting the first church in California, north of the Bay of San Francisco; but this is not all; to them belongs the credit of first planting fruit, raising grain, and working in leather, wood and iron, within the limits of the same territory. With these industries in hand, there is not the remotest doubt that the Russians looked to a future permanent possession of northern California. At this time, too, they made considerable annual shipments of grain to Sitka from Fort Ross and Bodega.

RUSSIANS LOCATE AND FORTIFY.

The location once chosen they set to work to prepare their new homes. A site was chosen for the stockade near the shore of the ocean, and in such a position as to protect all their ships lying in the little cove, and prevent any vessel inimical to them from landing. The plat of ground inclosed in this stockade was a parallelogram, 280 feet wide and 312 feet long, and containing about two acres. Its angles were placed very nearly upon the cardinal points of the compass. At the north and south angle there was constructed an octagonal bastion, two stories high, and furnished with six pieces of artillery. These bastions were built exactly alike, and were about twenty-four feet in diameter.

The walls were formed of hewed logs, mortised together at the corners, and were about eight inches in thickness. The roof was conical shaped, having a small flag-staff at the apex. The stockade approached these towers in such a way that one-half of them was within the inclosure and the other half on the outside, the entrance to them being through small doors on the inside, while there were embrasures both on the inside and outside. They were thus arranged so as to protect those within from an outside enemy. All around the stockade there were embrasures suitable for the use of muskets or carronades, of which latter it is said, several were in the fortress.

RUSSIAN CHAPEL AT FORT ROSS.

On the northern side of the eastern angle there was erected a chapel which it is said was used by the officers of the garrison alone. It was 25x31 feet in dimensions, and strongly built, the outer wall forming part of the stockade, and the round port-holes for the use of carronades, are peculiar looking openings in a house of worship. The entrance was on the inside of the fort, and consisted of a rude, heavy wooden door, held upon wooden hinges. There was a vestibule about 10x25 feet in size, thus leaving the auditorium 21x25 feet. From the vestibule a narrow stair-way led to a low loft, while the building was surmounted with two domes, one of which was round and the other pentagonal in shape, in which it is said the Muscovites had hung a chime of bells. The roof was made of long planks, either sawed or rove from redwood, likewise the side of the chapel in the fort.

The frame-work of all the buildings was made of very large, heavy timbers, many of them being twelve inches square. The rafters were all great, ponderous, round pine logs, a considerable number of them being six inches in diameter.

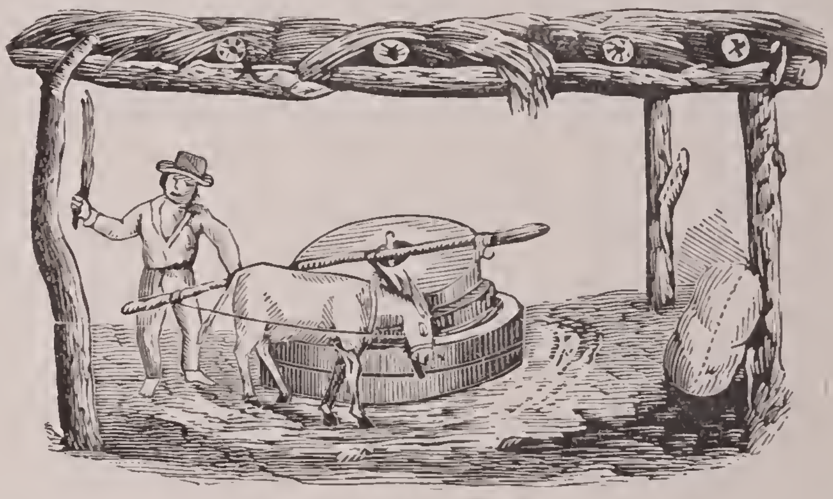
FIRST WINDMILL FOR GRINDING WHEAT.

To the northward of, and near the village, situated on an eminence, was a windmill, which was the motor for driving a single run of buhrs, and also for a stamping machine used for grinding tan-bark. The windmill produced all the flour used in that and the Bodega settlements, and probably a considerable amount was also sent with the annual shipment to Sitka.

FIRST TANNERY ERECTED.

To the south of the stockade, and in a deep gulch at the *debouchure* of a small stream into the ocean, there stood a very large building, probably 80x100 feet in size, the rear half of which was used for the purpose of tanning leather. There were six vats in all, constructed of heavy, rough redwood slabs, and each with a capacity of fifty barrels; there was also the usual appliances necessary to conduct a tannery, but these implements were large and rough in their make; still with these they were able to manufacture a good quality of leather in large quantities.

The front half of the building, or that fronting on the ocean, was used as a work-shop for the construction of ships. Ways were constructed on a sand beach at this point leading into deep water, and upon them were built a number of staunch vessels, and from here was launched the very first sea-going craft built in California. Still further to the south, and near the ocean shore, stood a building 80x100 feet, which bore all the marks of having been used as a store-house; it was, however, unfortunately blown down by a storm on July 16, 1878, and before many years there will be nothing left to mark its former site.


Grist-Mill of Early Settlers.

THE RUSSIAN FARMERS.

The Russians had farmed very extensively at this place, having at least 2,000 acres under fence, besides a great deal that was not fenced. These fences were chiefly of that kind known as rail and post.

Their agricultural processes were as crude as any of their other work. Their plow was very similar to the old Spanish implement, described on page 31, so common in this country at that time, and still extant in Mexico, with the exception that the Muscovite instrument possessed a mold-board. They employed oxen and cows as draft animals, using the old Spanish yoke adjusted to their horns, instead of to their necks. We have no account of any attempt at constructing either cart or wagon by them, but it is probable that they had vehicles the same as those described heretofore, as being in use among the Californians at that time.

THRESHING AS DONE BY RUSSIANS.

Threshing was done on a floor composed of heavy puncheons, circular in shape, and elevated somewhat above the ground. Between the puncheons were interstices through which the grain fell under the floor as it was released from the head. The threshing was done in this wise: A layer of grain, in the straw, of a foot or two in thickness, was placed upon the floor. Oxen were then driven over it, hitched to a log with rows of wooden pegs inserted into it. As the log revolved, these pegs acted well the part of a flail, and the straw was expeditiously relieved of its burden of grain. It was, doubtless, no hard job to winnow the grain after it was threshed, as the wind blows a stiff breeze at that point during all the summer months.

The Russians constructed a wharf at the northern side of the little cove, and graded a road down the steep ocean shore to it. Its line is still to be seen, as it passed much of the way through solid rock. This wharf was made fast to the rock on which it was constructed with long iron bolts, of which only a few that were driven into the hard surface now remain; the wharf itself is gone, hence we are unable to give its dimensions, or further details concerning it.

FIRST LUMBER MADE NORTH OF SAN FRANCISCO.

1812—These old Muscovites, doubtless, produced the first lumber with a saw ever made north of San Francisco Bay, for they had both a pit and a whip-saw, the former of which can be seen to this day. Judging from the number of stumps still standing, and the extent of territory over which they extended their logging operations, they evidently consumed large quantities of lumber. The timber was only about one mile distant from the ship-yard and landing, while the stumps of trees cut by them are still standing, and beside them from one to six shoots have sprung up, many of which have now reached a size sufficient for lumber purposes. This growth has been remarkable, and goes to show that if proper care were taken, each half century would see a new crop of redwoods, sufficiently large for all practical purposes, while ten decades would see gigantic trees.

For more than a quarter of a century they continued to hold undisturbed possession of the disputed territory, and prosecuted their farming, stock-raising, hunting, trapping and ship-building enterprises, and whatever may have been the causes which led to it, there finally came a time when the Russian authorities had decided to withdraw the California colony.

RUSSIANS SELL OUT TO GENERAL SUTTER.

The proposition was made first by them to the government authorities at Monterey, to dispose of their interests at Bodega and Fort Ross, including their title to the land; but, as the authorities had never recognized their right or title, and did not wish to do so at that late date, they refused to purchase. Application was next made to General M. J. Vallejo, but on the same grounds he refused to purchase.

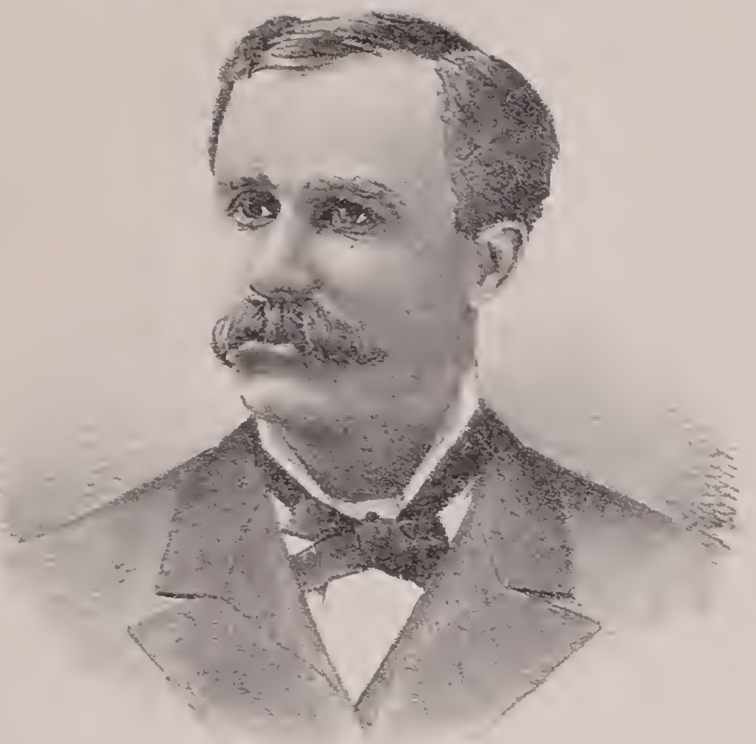
They then applied to Captain John A. Sutter, a gentleman at that time residing near where Sacramento City now stands, and who had made a journey from Sitka, some years before, in one of their vessels. They persuaded Sutter into the belief that their title was good, and could be maintained; so, after making out a full invoice of the articles they had for disposal, including all the land lying between Point Reyes and Point Mendocino, and one league inland, as well as cattle, farming and mechanical implements, also, a schooner of 180 tons burthen, some arms, a four-pound brass field-piece, etc., a price was decided upon, the sum being $30,000, which, however, was not paid at one time, but in cash installments of a few thousand dollars, the last payment being made through Governor Burnett, in 1849.

All the stipulations of the sale having been arranged satisfactorily to both parties, the transfer was duly made, and Sutter became, as he thought, the greatest landholder in California. In 1859, Sutter disposed of his Russian claim which was a six-eighths interest in the lands mentioned above, to William Muldrew, George R. Moore and Daniel W. Welty; but they only succeeded in getting $6,000 out of one settler, and the remainder refusing to pay, the claim was dropped.

EVACUATION OF FORT ROSS.

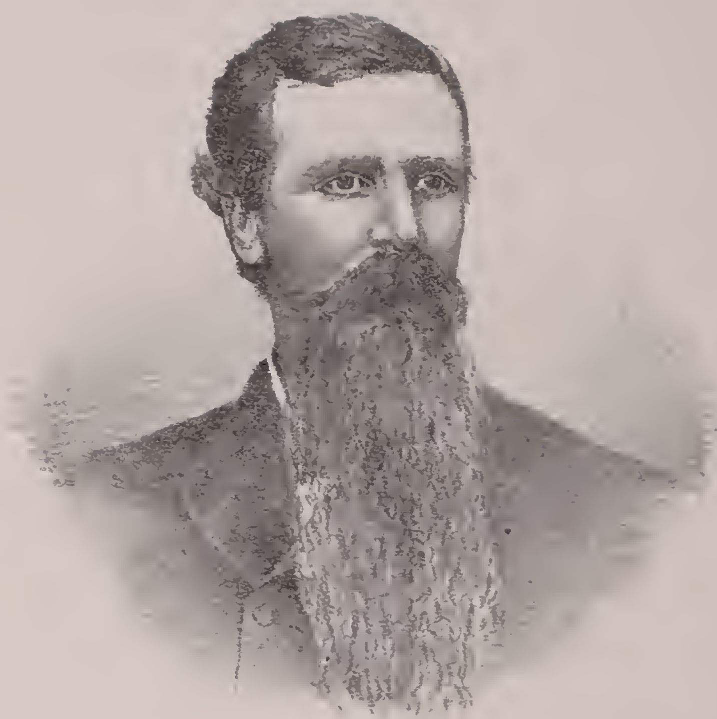
Orders were sent to the settlers at Fort Ross to repair at once to San Francisco Bay, and ships were dispatched to bring them there, where whaling vessels, which were bound for the northwest whaling grounds, had been chartered to convey them to Sitka. The vessels arrived at an early hour in the day, and the orders shown to the commander, Rotscheff, who immediately caused the bells in the chapel tower to be rung, and the cannon to be discharged, this being the usual method of convocating the people at an unusual hour, or for some special purpose, so everything was suspended just there—the husbandman left his plow standing in the half-turned furrow, and unloosed his oxen, never again to yoke them, leaving them to wander at will over the fields; the mechanic dropped his planes and saws on the bench, leaving the half-smoothed board still in the vise; the tanner left his tools where he was using them, and doffed his apron to don it no more in the State of California.

As soon as the population had assembled, Rotscheff arose and read the orders. Very sad and unwelcome, indeed, was this intelligence; but the edict had emanated from a source which could not be gainsaid, and the only alternative was a speedy and complete compliance, however reluctant it might be—and thus 400 people were made homeless by the fiat of a single word. Time was only given to gather up a few household effects.



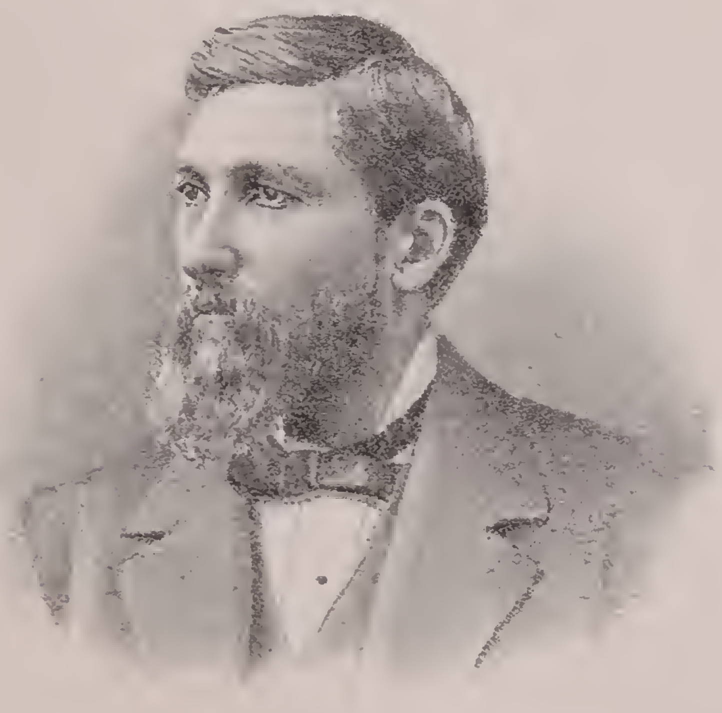
SUPT. SCHOOLS.

H. Murphy.



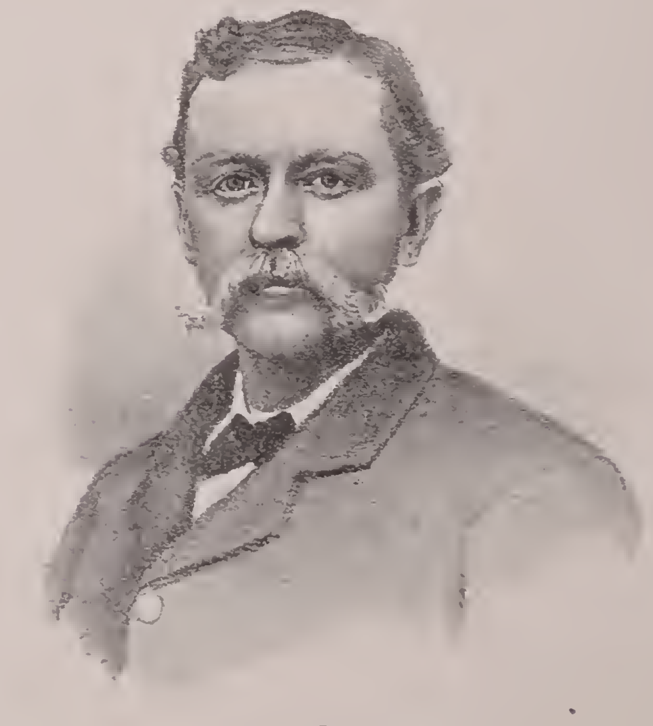
DIST. ATTY.

E J Edwards



RECORDER.

J. E. Denny.



SHERIFF.

W. L. Martin

Foreigners Begin to Come.

THE early success of the missions advertised the attractiveness of California to the world. It became known not only in Mexico, but through the early adventurers and traders, in the United States. They not only traded in hides and tallow, but told the story of the mission wealth—the herds and flocks and fruits, and they told of the furs to be procured.

The valleys of California were, during the early part of this century, occupied and traversed by bands of trappers in the employ of the American and foreign fur companies. The stories of their wanderings and experiences are mostly related in the form of sensational novels, whose authenticity and accuracy must be taken with a great degree of allowance.

Few records concerning these fur hunters remain which are within the reach of the historian, and the information given has been gleaned, in part, from personal interviews with those whose knowledge of the subject was gained by actual experience or by a personal acquaintance with those who belonged to the parties. In many cases their stories differ widely in regard to facts and names.

We here give the date of arrival of some of the most important of the pioneers, and incidents connected with their movements.

1814.—John Gilroy arrived at Monterey on the 5th of February, 1814. His baptismal name was John Cameron; but he assumed the name of John Gilroy in consequence of certain circumstances connected with his birth.

He spent most of his life around Monterey, and resided at what is called "Old Gilroy," a short distance from Gilroy, in Santa Clara County, which places are named from him.

UPPER SAN JOAQUIN VALLEY EXPLORED.

1820.—As early as this date, Tulare, San Joaquin and Sacramento Valleys were occupied by trappers, who had wandered there while searching for the Columbia River. Captain Sutter, in 1834, while in New Mexico, heard from these California trappers, of the Sacramento Valley, which afterwards became so reputed as his home. The disputes arising in regard to the occupation of the northern part of the Pacific Coast trapping region in Oregon, led the American hunters to occupy the territory in and about the Rocky Mountains.

A TOUCHING LITTLE EPISODE.

1822.—About the year 1822, an Englishman landed at Santa Cruz, known by the name of William Thompson. He is employed in the hide buisness. There is a touching little story connected with him. His native place was London. His father was a sail-maker. And there lived the family—mother, brothers, sisters and all. William went to sea. They parted with him with regret and sorrow, and after a time they ceased to hear from him. Years went by and they could get no tidings of him. The family grieved; and the mother pined for her son. But time went on, and no tidings came. By and by his brother Samuel proposed to go in search of him. Though he did not know where on the globe he might be, if still alive, yet he thought he could go to sea, and make voyages to different parts, and somewhere fall in with him, or hear of him. His plan was agreed to, and he started. Just how long he sailed, and where he went, is unknown; but after a while he was on a ship that came into the port of Santa Cruz. Here was anchored, at that time, another ship, taking on board a cargo of hides.

Samuel then came ashore and inquired for the captain of that ship. When he found him, he asked him if among his crew there was one William Thompson. The captain said he didn't know certainly whether he had a man by that name "but there the men are," said he, pointing to them at work on the beach, carrying hides, "you can go and see." Samuel went, and the very first man he met was William! We can imagine Samuel's joy at the meeting, after so long a search; and the joy, also, that the account of it caused in that home in London, when it reached there. But it appears, instead of Samuel getting William to go home, that they both remained on this coast. They shipped together and went down to South America, and then returned to Santa Cruz.

STRANGE MEETING ON THE MERCED.

1823.—The Ashley expedition was fitted out in 1823, at St. Louis, for the fur trade. This party entered the San Joaquin Valley, and hunted and trapped along the Merced, Stanislaus and Tuolumne Rivers.

Belonging to this company was Joshua Griffith and William Hawkins, who met first at St. Louis, and afterwards hunted in the San Joaquin Valley.

Years rolled on and they were widely separated, and after many vicissitudes, of wild adventure, through scenes of peril, among hostile Indians and various hair-breadth escapes—strange to say, we find them after years had passed away, in 1874, settled down to quiet life, each with a family, on the Merced River, which locality seems to have impressed them as the choicest of the State. They were living there as late as 1878.

Captain Juan B. R. Cooper came to Monterey in 1823, and obtained a license to hunt otters, as also did some others.

1824.—Santiago McKinly, a native of Scotland, arrived in Los Angeles during the year 1824. He was at that time twenty-one years of age. He became a merchant, and his name appears on a list of foreigners resident in Los Angeles in 1836, now on file in the city archives. He afterwards went to Monterey, and was reported dead some years ago.

From Scotland came David Spence, in 1824, with the view of establishing a packing house in Monterey for a Lima firm.

down the Mary's or Humboldt River for California, over a country entirely unknown to the trappers. They discovered Truckee, Carson and Walker Rivers, Donner Lake and Walker's Pass, through which they went and pitched their camp for the winter on the shore of Tulare Lake, in December, 1833.

FIRST AMERICAN RESIDENTS IN SAN FRANCISCO.

1835.—William A. Richardson moved from Saucelito to Yerba Buena (San Francisco), opened a store, and began trading in hides and tallow in the summer of 1835.

1836.—Jacob P. Leese, for a number of years a resident of Los Angeles, in July, 1836, built a store in Yerba Buena. He had previously met many obstacles in obtaining a grant of land upon which to locate the building, but by the authority of Governor Chico, this was finally effected.

Previous to the location of Richardson and Leese, the only inhabitants of the pueblo and mission at Yerba Buena were Spaniards, Mexicans and Indians.

EARLY IMMIGRATION SOCIETIES.

1837.—As early as 1837 several societies were organized in the American States to promote immigration to the Pacific Coast. During that and ensuing years, thousands of emigrants journeyed across the rocky and snowy mountains, enduring toils and hardships indescribable, to settle in California and Oregon. Others came by the way of Mexico or Cape Horn, and soon the valleys of the northern rivers were peopled by American agriculturists; and the southern and coast towns by American traders, who speedily monopolized the whole business of the country, and even in some communities formed the numerical strength of the white population.

The Mexican Congress, feeling that California was about to slip from their country as Texas had done before, passed laws against the intrusion of foreigners; but there was no power in the State competent to put these edicts into execution.

We have mentioned a few of the early pioneers so as to give an idea of the extent and kind of settlers up to about 1840, at which time numerous companies of settlers arrived, and we shall now only mention those of the most importance, and who took an active part in political affairs.

FIRST SAW-MILL ERECTED.

1833.—Isaac Graham came from Hardin County, Kentucky, to California in 1833. He settled near Monterey, and his name is intimately associated with Santa Cruz and vicinity.

It is said that he erected on the San Lorenzo, somewhere in the neighborhood of where the powder works now are, the first saw-mill in California.

Early in life he went to New Mexico, and Benjamin D. Wilson met him at Taos. Mr. Wilson has described him as being at that time a very disreputable character. He also says that Graham left a family in Tennessee, being obliged to flee that State to escape the consequences of some offense he had committed.

He reached Los Angeles in company with Henry Naile about 1835, and remained there until the following year, when he removed to "Natividad," Monterey County, and (according to Mr. Wilson) "established a small distillery in a *tule* hut which soon became a nuisance owing to the disreputable character of those who frequented it."

Graham was a brave and adventurous man, a thorough frontiersman, at home with his rifle in his hand, and this had become known to the native officials in Monterey.

When, in 1836, Juan B. Alvarado, a subordinate customs officer, was plotting revolution and contemplated the expulsion of Governor Guiterrez, he came to Graham and sought his assistance, and that of the foreigners who acted with him in the matter.

INDEPENDENCE OF MEXICO CONTEMPLATED.

On condition that all connection with Mexico should be severed, and that California should become independent, the assistance of Graham and others was promised, and in due time it was rendered. And by means of it Guiterrez was sent away, and Alvarado and his party soon became masters of the situation. Now was the time for the fulfillment of the promise of independence of Mexico, but Mexico, instead of punishing Alvarado, proposes to confirm him in his usurped authority. Alvarado, pleased and flattered by this, quickly breaks his promise to Graham, but in so doing, he feels a wholesome fear of those rifles, by the assistance of which he had himself gained his promotion.

His first care seems to have been to disable that little force of foreigners, and to put it out of their power to punish his breach of faith.

GENERAL ARREST OF FOREIGNERS.

1840.—Orders are sent out secretly to all the Alcaldes in this part of the country simultaneously, on a certain night to arrest foreigners and bring them to Monterey. Jose Castro himself heads the party for the arrest of Graham.

It was on the morning of the 7th of April, 1840, before light, that the party reached Graham's dwelling. They broke in the doors and shattered the windows, firing at the inmates as they saw them rising from their beds. One of the assailants thinking to make sure of Graham himself, discharged a pair of pistols aimed at his heart, the muzzles touching his cloak, which he had hastily thrown over his shoulders.

This assassin was amazingly surprised afterwards on seeing Graham alive, and he could not account for it till he examined his holsters, then he found the reason. There, sure enough, were the balls in the holsters! The pistols had been badly loaded, and that it was that saved Isaac Graham from instant death.

FIRST SCHOONER BUILT.

1831.—William Wolfskill was born March 20, 1798, near Richmond, Kentucky. Until the year 1831 he roamed through the great West as a hunter and trapper. In February of that year he reached Los Angeles with a number of others, and here the party broke up. Aided by Friar Sanchez, then in charge of San Gabriel Mission, he, in company with Nathaniel Pryor, Richard Laughlin, Samuel Prentiss, and George Young, late of Napa County, (all Americans) built a schooner at San Pedro for the purpose of hunting sea-otter.

FIRST BILLIARD TABLES MADE.

1832.—Joseph Pawlding was a native of Maryland, and entered California from New Mexico in the winter of 1832–33, by way of the Gila River. He afterwards traveled a good deal in both countries. He was a carpenter by trade, and made the first two billiard tables ever made in California; the first for George Rice, and the second for John Rhea. He died at Los Angeles, June 2, 1860.

HUNTERS AND TRAPPERS OF 1832.

About the middle of 1832 another band of trappers, under Michael Laframboise, came into San Joaquin Valley from the north, and until the next spring spent the time in trapping on the streams flowing through the great valley. The Hudson Bay Company continued sending out its employés into this region until about the year 1845. Their trappers in California belonged to the "Southern Trapping Party of the Hudson Bay Company," and were divided into smaller parties composed of Canadians and Indians with their wives. The trapping was carried on during the winter in order to secure a good class of furs.

The free trappers were paid ten shillings sterling for a prime beaver skin, while the Indians received a moderate compensation for their services.

The outfits and portions of their food were purchased from the company.

HUDSON BAY COMPANY.

The Hudson Bay Company employed about ninety or one hundred men in this State. The greater part of the Indians were fugitives from the missions, and were honest and peaceably inclined, from the fact that it was mainly to their interest to be so.

From 1832 the chief rendezvous was at French Camp, about five miles south of Stockton. About 1841, the company bought of Jacob P. Leese, the building he had erected for a store in San Francisco, and made that their business center for this territory.

The agents were Alexander Forbes and William G. Ray. The latter committed suicide in 1845. His death, and the scarcity of beaver and otter, caused the company to wind up their agency and business in the territory.

FIRST ENGLISH HISTORIAN OF CALIFORNIA.

Alexander Forbes was for a long series of years the British Consul at San Francisco, and by his genial manners, superior culture, and finished education, made a record which places him among the noted men of the State. This gentleman resided in Oakland; and, although seventy-five years of age, his faculties were as strong as ever. His memory was wonderful, and the power of retention, with the vast fund of knowledge possessed, has been of great service to the historian. He had the honor of being the first English historian of California, his "California," published in London in 1839, being written in Mexico four years previous to the date of its publication. He died in 1879.

In 1832 came Thomas O. Larkin from Boston, intending to manufacture flour. Mr. Larkin's home was in Monterey, and he probably did far more to bring California under the United States flag than any other man.

1833.—James Peace, a Scotchman, came into the country in 1833, having left a ship of the Hudson Bay Company. He was of a somewhat roving disposition, and became acquainted with all the earlier pioneers from Monterey to the Sonoma District. Was with his countryman, John Gilroy, in Santa Clara County; was with Robert Livermore, an English seaman, who settled and gave the name to the Livermore Valley in Alameda County, and was at New Helvetia, the establishment of General Sutter.

FIRST CAMPERS ON TULARE LAKE.

Stephen Hall Meek, the famous hunter and trapper, who now resides on Scott Creek in Siskiyou County, spent the winter of 1833 on the shores of Tulare Lake. He is the only one of the large trapping party now living who wintered there.

There is probably not now living a mountain man who has had so varied an experience and so many wild adventures, hair-breadth escapes and battles with savage animals and no less savage men, as the veteran trapper, Stephen H. Meek. He was born in Washington County, Virginia, on the Fourth of July, 1807, and is a relative of President Polk. He attended the common schools of the day when young. When scarcely twenty years of age he became imbued with that restless spirit of adventure that has since been a marked characteristic of his life, and left his home for the then comparatively unknown West.

We have not space to relate his travels all over California and Oregon. In the spring of 1831 the party went up a tributary of the Yellowstone; then to Green River, and finally wintered on Snake River, where Fort Hall was afterwards built. In the spring he trapped Salmon, Snake and Poin Neuf, and then went to Green River rendezvous. There he hired to Capt. B. L. E. Bonneville to accompany an expedition of thirty-four men under Joseph Walker to explore the Great Salt Lake. They got too far west and finally started down the Mary's or Humboldt River for California, over a country entirely unknown to the trappers. They discovered Truckee, Carson and Walker Rivers, Donner Lake and Walker's Pass, through which they went and pitched their camp for the winter on the shore of Tulare Lake, in December, 1833.

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When, in 1836, Juan B. Alvarado, a subordinate customs officer, was plotting revolution and contemplated the expulsion of Governor Guiterrez, he came to Graham and sought his assistance, and that of the foreigners who acted with him in the matter.

INDEPENDENCE OF MEXICO CONTEMPLATED.

On condition that all connection with Mexico should be severed, and that California should become independent, the assistance of Graham and others was promised, and in due time it was rendered. And by means of it Guiterrez was sent away, and Alvarado and his party soon became masters of the situation. Now was the time for the fulfillment of the promise of independence of Mexico, but Mexico, instead of punishing Alvarado, proposes to confirm him in his usurped authority. Alvarado, pleased and flattered by this, quickly breaks his promise to Graham, but in so doing, he feels a wholesome fear of those rifles, by the assistance of which he had himself gained his promotion.

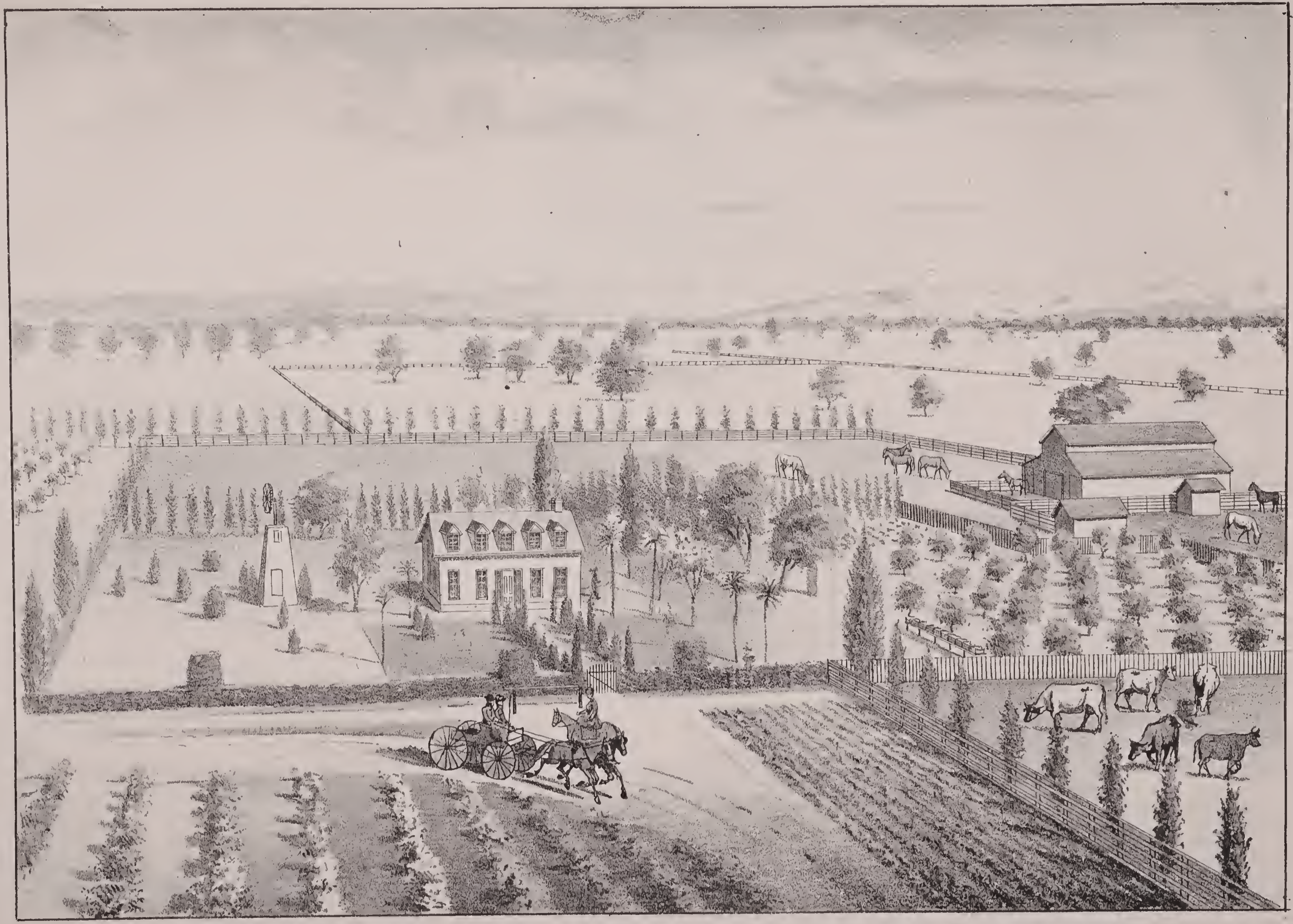
His first care seems to have been to disable that little force of foreigners, and to put it out of their power to punish his breach of faith.

GENERAL ARREST OF FOREIGNERS.

1840.—Orders are sent out secretly to all the Alcaldes in this part of the country simultaneously, on a certain night to arrest foreigners and bring them to Monterey. Jose Castro himself heads the party for the arrest of Graham.

It was on the morning of the 7th of April, 1840, before light, that the party reached Graham's dwelling. They broke in the doors and shattered the windows, firing at the inmates as they saw them rising from their beds. One of the assailants thinking to make sure of Graham himself, discharged a pair of pistols aimed at his heart, the muzzles touching his cloak, which he had hastily thrown over his shoulders.

This assassin was amazingly surprised afterwards on seeing Graham alive, and he could not account for it till he examined his holsters, then he found the reason. There, sure enough, were the balls in the holsters! The pistols had been badly loaded, and that it was that saved Isaac Graham from instant death.



"PIONEER FARM," HOME OF DANIEL SPANGLER, NEAR KINGS RIVER, TULARE CO. CAL.

He was however hurried to Monterey and placed in confinement, as also were other foreigners, arrested on that same night.

What followed is best told in a memorial which these same prisoners afterwards addressed to the Government of the United States, asking that Mexico be required to restore their property, and compensate them for their injuries and lost time.

We quote from an unpublished manuscript, which Rev. S. H. Willey obtained in Monterey in 1849, and furnished for publication in Elliott's History of Monterey.

APPEAL TO THE UNITED STATES GOVERNMENT.

MONTEREY, November, 1842.

To his Excellency, John Tyler, President of the United States:

"On the morning of the seventh of April, one thousand eight hundred and forty, we, your petitioners, citizens of the United States of North America, and many more of our countrymen, together with several of H. B. M. subjects, engaged in business in Monterey and its vicinity, were, without any just cause or provocation, most illegally seized and taken from our lawful occupation, (many being married to natives of the country), and incarcerated in a loathsome prison in Monterey. The number was subsequently increased by the arrival of others for the space of some ten or twelve days. No warrant or civil process was either read or shown to them (at the time of their seizure) nor has the Government of California conceded to this present day in any official manner, why or wherefore that our persons were thus seized, our property taken from us, what crime we had committed, and why transported like so many criminals to a province in Mexico.

"The perpetrators of this most outrageous action against the rights and privileges allowed to American citizens (according to treaty) were principally officers and soldiers appertaining to this Government and acting by authority and command (as the undersigns have heard and firmly believe), of his Excellency, Don Juan Bautista Alvarado, Governor of the two Californias.

"Some of us were marched on foot to prison, some forced to go on their own animals, and, on their arrival at the prison door, said animals and equipments taken from them, including what was found in their pockets, and with menacing, thrust into prison. The room in which we were confined, being about twenty feet square, without being floored, became very damp and offensive, thereby endangering our health, at times. One had to stand while another slept, and during the first three days not a mouthful of food found or offered us by our oppressors, but living on the charity of them that pitied us.

"To our countryman, Mr. Thomas O. Larkin, we are bound in conscience to acknowledge that he assisted us not only in food, but in what other necessaries we at the time stood in need of and what was allowed to be introduced; some of us were taken out of prison from time to time and released by the intercession of friends or through sickness.

PRISONERS EXAMINED BY THE AUTHORITIES.

"Eight of the prisoners were separately called upon and examined by the authorities of Monterey, having as interpreter, a native of the country (who himself frequently needs in his occupation one to interpret for him), there being at the same time, men far more equivalent for the purpose than he was, but they were not permitted; the above-mentioned eight were, after examination, taken to another apartment and there manacled to an iron bar during their imprisonment in this port. After fifteen days' confinement, we were sent on board of a vessel bearing the Mexican flag, every six men being shackled to an iron bar, and in that condition put into the hold of said vessel and taken to Santa Barbara, a sea-port of this province, and there again imprisoned in company with the mate of an American vessel, recently arrived from Boston, in the United States, (and part of the crew) said vessel being sold to a Mexican, resident in this territory, without, as before mentioned, any just or legal cause being assigned, why or wherefore.

"On arriving at Santa Barbara, we were landed and taken some distance; three of us in irons were put into an ox-cart, the remainder on foot; among the latter some were chained in pairs, in consequence reached the prison with much difficulty. Here we were put into a room without light or means of air entering only through a small hole in the roof. For the first twenty-four hours we were not allowed food or water, although we had been some time walking in a warm sun. One of the prisoners became so completely prostrated, that for some time he could not speak, nor swallow when water was brought to him, and would have expired but for the exertions of a Doctor Den, an Irish gentleman living in the town who, with much difficulty, obtained admittance to the sufferer. By his influence and some Americans in the place, food and water were at last sent us.

"In Santa Barbara our number was increased by the addition of more of our countrymen; some of those brought from Monterey were discharged and received passports to return; the remainder were marched to the beach, again put in the hold of a vessel (in irons), and in this manner taken to the port of San Blas, landed, and from thence, in the midsummer of a tropical climate, marched on foot sixty miles to the city of Tepic, and there imprisoned. Some time after our arrival we were discharged by the Mexican Governor, and in the space of four hundred and fifty-five days from the commencement of our imprisonment, we again returned to Monterey. From the day we were taken up until our return we had no opportunity to take care of our property; we were not even allowed, when ordered on board in Monterey, to send for a single garment of clothing, nor permitted to carry any into the prison, but such as we had on; and not once during our said imprisonment in Monterey, although in a filthy and emaciated condition, permitted to shave or wash ourselves.

"When in prison, in the hold of the vessel, and on our march, we were frequently threatened, pricked and struck with swords by the subaltern officers of the Mexican Government.

SUFFERINGS OF THE PRISONERS.

"Our sufferings in prison, on board ship, and when drove on foot in a warm sun, then ordered to sleep out at night in the dew, after being exhausted by the heat and dust, surpass our power of description, and none but those who were with us can realize or form a just conception of our distressed situation.

"For many weeks we were fed in a manner different from the common mode, kept in a filthy and disgusting condition, which, combined with the unhealthy state of the country where we were taken to, has caused death to some, and rendered unhealthy for life, others of our companions. * * * *

"Since our return to California from our confinement in Mexico, Captains Forest and Aulick have visited this port at different periods, in command of United States vessels. Each of those gentlemen took up the subject of our claims and ill-treatment, and, as we believe, received fair promise from the Governor of the province; but the stay of those officers at Monterey having been limited to a few days only, was entirely too short to effect any good. The Governor's promise, orally, made by a deputy to Captain Aulick, on the eve of his departure, so far from being complied with or adhered to, was, as we have reason to believe, abrogated by his orders to Alcaldes, not to listen to the complaints of Americans, *i. e.*, citizens of the United States. * * * * * * *

"We, the undersigned, citizens of the United States, aforesaid, were among the prisoners, some of us to the last day, and have never given provocation to the Mexican Government for such cruel treatment, nor do we know of any given by our companions, and respectfully submit to your notice, the foregoing statement of facts, in hopes that through your means, this affair will be fully represented, so that the Government of the United States will take prompt measures to secure to us indemnity for the past, and security for the future, according to the rights and privileges guaranteed to us by treaty, existing between our Government and Mexico.

"Isaac Graham, William Barton,
"William Chard, Alvin Wilson,
"Joseph L. Majors, Charles H. Cooper,
"Charles Brown, Ambrose Z. Tomilson,
"William Hance, Henry Naile.

"Monterey, Upper California, the 9th of November, 1842."

Two years later these persons were returned to California, the charges not having been proven; and Mexico was obliged to pay them a heavy idemnity to avoid serious complication with the American Government. All these died several years ago.

It appears that after Alvarado, Castro and company, had got their dreaded company of foreigners in confinement on board a vessel ready to sail to Mexico, seven citizens of note, of California, signed and issued the following proclamation, which is a curiosity in itself and illustrative of the men and the times:—

A SPECIMEN PROCLAMATION.

"Proclamation made by the Undersigned. Eternal Glory to the Illustrious Champion and Liberator of the Department of Alta California, Don Jose Castro, the Guardian of Order, and the Supporter of our Superior Government.

"*Fellow-Citizens and Friends:* To-day, the eighth of May, of the present year of 1840, has been and will be eternally glorious to all the inhabitants of this soil, in contemplating the glorious expedition of our fellow-countryman, Don Jose Castro, who goes to present himself before the Superior Government of the Mexican nation, carrying with him a number of suspicious Americans, who under the mask of deceit, and filled with ambition, were warping us in a web of misfortune; plunging us into the greatest confusion and danger; desiring to terminate the life of our Governor and all his subalterns; and, finally, to drive us from our asylums; from our country: from our pleasures, and from our hearths.

"The bark which carries this valorous hero on his grand commission goes filled with laurels and crowned with triumphs, ploughing the vaves and publishing in distinct voices to the passing billows the loud *vivas* and rejoicings which will resound to the remotest bounds of the universe. Yes, fellow-citizens and friends, again we say, that this glorious Chief should have a place in the innermost recesses of our hearts, and in the name of all the inhabitants, make known the great rejoicings with which we are filled, giving, at the same time, to our Superior Government the present proclamation, which we make for said worthy Chief; and that our Governor may remain satisfied, that if he (Castro) has embarked for the interior of the Republic, there still remain under his (the Governor's) orders all his fellow-countrymen, companions in arms, etc., etc."

DISAPPOINTMENT AND HUMILIATION.

But a great disappointment awaited this heralded hero on his arrival in Mexico. We find the description of it in another manuscript, as follows:—

"Commandant Castro and his three or four official friends rode into Tepic in triumph, as they thought, and inquired for the house of the Governor. On their arrival at his Excellency's they were refused admittance and ordered to go to prison, which one of them said could not be compared in comfort to the meanest jail or hole in all California. Here they had time to reflect on their scandalous conduct to so many human beings. Castro was then ordered to the City of Mexico and tried for his life, Mr. Packenham, the English Minister, having every hope of his being sent a prisoner for life to the prison of San Juan de Uloa in Vera Cruz. The culprit himself afterwards confessed that such would have been his fate had Mr. Ellis, the American Minister, exerted himself equally with Packenham.

"After an absence of two years and expending eight or ten thousand dollars, he returned to California a wiser and better man than when he left it, and never was afterwards known to raise a hand or voice against a foreigner. His officers and soldiers returned to California in the best manner they could, leaving their country as jailers and returning prisoners."

FIRST SETTLERS IN SAN JOAQUIN VALLEY.

1835.—Dr. John Marsh arrived at the foot of Mount Diablo and purchased the "Ranchos los Meganos" in 1837, of three square leagues of land, and settled upon it in the same year, and occupied it afterwards until his death, which occurred in 1856. The doctor lived in a small adobe house near where he afterwards constructed what is known as the "Marsh Stone House." So that the doctor was the first born native American citizen who ever resided permanently in that section. It would be difficult now to conceive of a more lonely and inhospitable place to live.

Until about 1847, Dr. Marsh had no American neighbors nearer than within about forty miles, and dwellings on adjoining Spanish ranches were from twelve to fifteen miles distant.

All early emigrant parties made Dr. Marsh's ranch an objective point, as it was so easily sighted, being at the foot of Mount Diablo. All parties met with a cordial reception.

Sutter's Fort and Marsh's Ranch were the two prominent settlements in northern California at that date. Dr. Marsh was an educated man and an able writer, as will be seen from the following letter.

DR. JOHN MARSH TO HON. LEWIS CASS.*

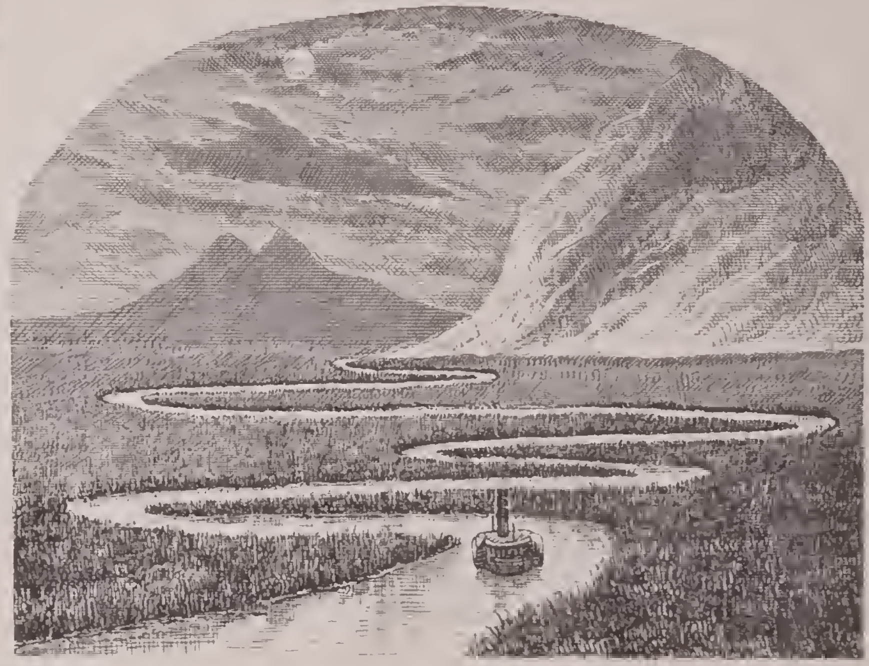
Farm of Pulpunes, near St. Francisco,
Upper California, 1844.

"Hon. Lewis Cass—*Dear Sir*: You will probably be somewhat surprised to receive a letter from an individual from whom you have not heard, or even thought of, for nearly twenty years; yet although the lapse of time has wrought many changes, both in men and things, the personal identity of us both has probably been left. You will, I think, remember a youth whom you met at Green Bay in 1825, who, having left his Alma Mater, had spent a year or two in the "far, far, West," and was then returning to his New England home, and whom you induced to turn his face again toward the setting sun; that youth who, but for your influence, would probably now have been administering pills in some quiet Yankee village, is now a gray-haired man, breeding cattle and cultivating grape-vines on the shores of the Pacific. Your benevolence prompted you to take an interest in the fortunes of that youth, and it is therefore presumed you may not be unwilling to hear from him again.

"I left the United States in 1835, and came to New Mexico, and thence traversing the States of Chihuahua and Sonora crossed the Rio Colorado at its junction with the Gila, near the tide-water of Gulph, and entered this territory at its southern part. Any more direct route was at that time unknown and considered impracticable.

FIRST SAN JOAQUIN RANCH.

"I have now been more than ten years in this country, and have traveled over all the inhabited and most of the uninhabited parts of it. I have resided eight years where I now live, near the Bay of San Francisco, and at the point where the rivers Sacramento and San Joaquin unite together to meet the tide-water of the bay, about forty miles from the ocean. I possess at this place a farm about ten miles by twelve in extent one side of which borders on the river, which is navigable to this point for sea-going vessels. I have at last found the far West, and intend to end my ramblings here. * * *


Mt. Diablo.
Tules on Fire.

View of San Joaquin River by Moonlight.

"The Government of the United States, in encouraging and facilitating immigration to Oregon is, in fact, helping to people California. It is like the British Government sending settlers to Canada. The emigrants are well aware of the vast superiority of California, both in soil and climate, and I may add, facility of access. Every year shorter and better routes are being discovered, and this year the great desideratum of a good and practical road for wheel carriages has been found. Fifty-three wagons, with that number of families, have arrived safely, and more than a month earlier than any previous company. The American Government encourages immigration to Oregon by giving gratuitously some five or six hundred acres of land to each family of actual settlers. California, too, gives lands, not by acres, but by leagues, and has some thousands of leagues more to give to anybody who will occupy them. Never in any instance has less than one league been given to any individual and the wide world from which to select from all the unoccupied lands in the territory. While Colonel Almonte, the Mexican Minister to Washington, is publishing his proclamations in the American newspapers forbidding people to immigrate to California, and telling them that no lands will be given them, the actual Government here is doing just the contrary. In fact they care about as much for the Government of Mexico as for that of Japan. * * * * * * * *

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*This interesting letter descriptive of California did much to call public attention to this then unknown region. The letter was written from the Marsh Grant, at the foot of Mount Diablo, in Contra Costa County, and published in Elliott's History of Contra Costa County.

EARLY IMPRESSIONS OF CLIMATE.

"The climate of California is remarkably different from that of the United States. The great distinguishing difference is its regularity and uniformity. From May to October the wind is invariably from the northwest, and during this time it never rains, and the sky is brilliantly clear and serene. The weather during this time is temperate, and rarely oppressively warm. The nights are always agreeably cool, and many of the inhabitants sleep in the open air the whole year round. From October to May the southeast wind frequently blows, and is always accompanied by rain. Snow never falls excepting in the mountains. Frost is rare except in December or January. A proof of the mildness of the winter this moment presents itself in the shape of a humming-bird, which I just saw from the open window, and this is in latitude 38° on the first day of February. Wheat is sown from October until March, and maize from March until July. As respects human health and comfort, the climate is imcomparably better than that of any part of the United States. It is much the most healthy country I have ever seen or have any knowledge of. There is no disease whatever that can be attributed to the influence of the climate.

"The face of the country differs as much from the United States as the climate. The whole territory is traversed by ranges of mountains, which run parallel to each other and to the coast. The highest points may be about 6,000 feet above the sea, in most places much lower, and in many parts they dwindle to low hills. They are everywhere covered with grass and vegetation, and many of the valleys and northern declivities abound with the finest timber trees. Between these ranges of mountains are level valleys, or rather plains of every width, from five miles to fifty. The magnificent valley through which flows the rivers San Joaquin and Sacramento is 500 miles long. with an average of width of forty or fifty. It is intersected laterally by many smaller rivers, abounding with salmon.

The only inhabitants of this valley, which is capable of supporting a nation, are about 150 Americans and a few Indians. No published maps that I have seen give any correct idea of the country, excepting the outline of the coast.

SAN FRANCISCO BAY DESCRIBED.

"The Bay of San Francisco is considered by nautical men as one of the finest harbors in the world. It consists of two principal arms, diverging from the entrance in nearly opposite directions, and each about fifty miles long, with an average width of eight or ten. It is perfectly sheltered from every wind, has great depth of water, is easily accessible at all times, and space enough for half the ships in the world. The entrance is less than a mile wide, and could be easily fortified so as to make it entirely inpregnable. The vicinity abounds in the finest timber for ship-building, and in fact everything necessary to make it a great naval and commercial depot. If it were in the hands of a nation who knew how to make use of it, its influence would soon be felt on all the western coast of America, and probably through the whole Pacific. * * *

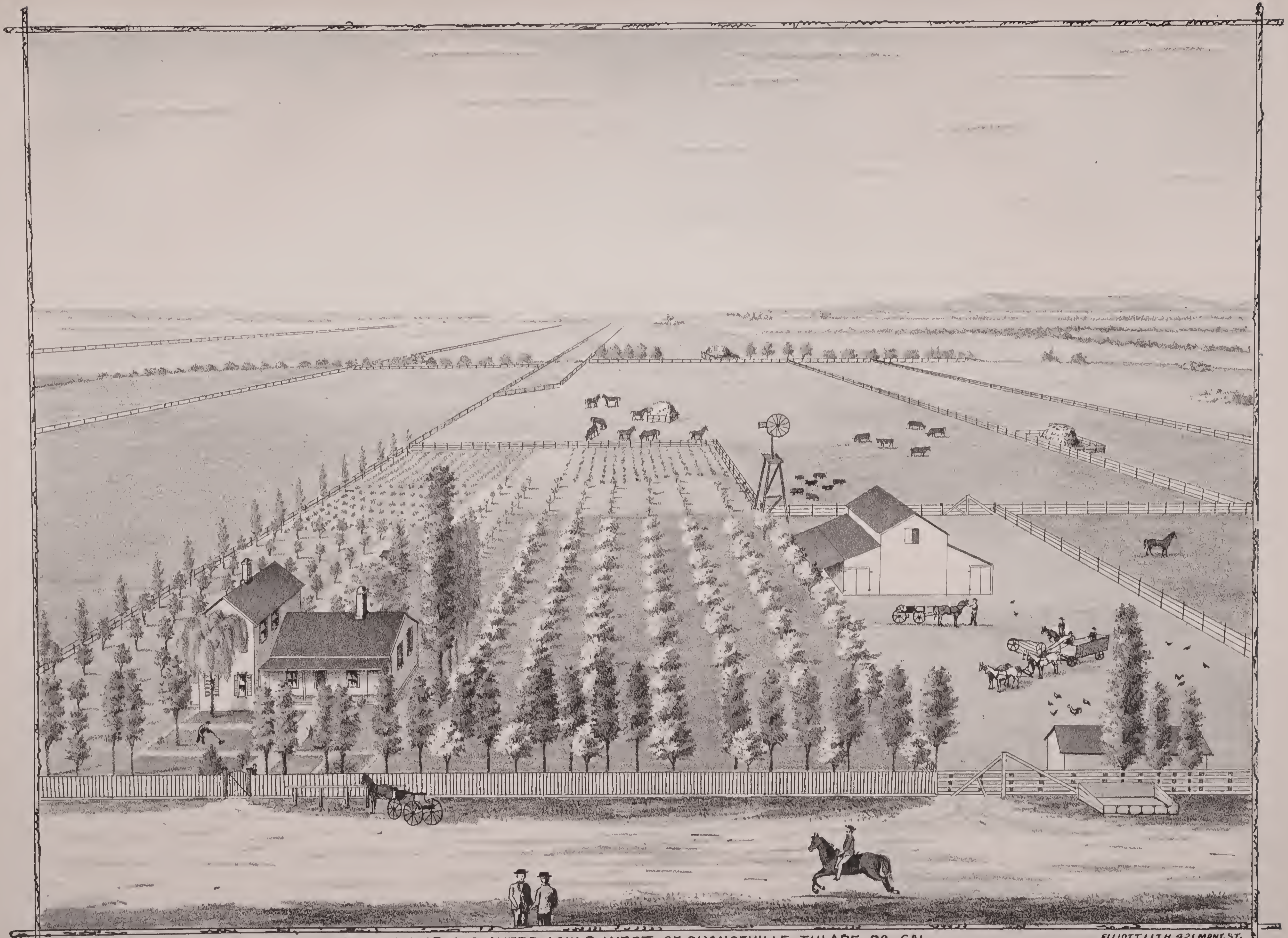
"The agricultural capabilities of California are but very imperfectly developed. The whole of it is remarkably adapted to the culture of the vine. Wine and brandy of excellent quality are made in considerable quantities. Olives, figs and almonds grow well. Apples, pears and peaches are abundant, and in the southern part, oranges. Cotton is beginning to be cultivated, and succeeds well. It is the finest country for wheat I have ever seen. Fifty for one is an average crop, with very imperfect cultivation. One hundred fold is not uncommon, and even 150 has been produced. Maize produces tolerably well but not equal to some parts of the United States. Hemp, flax and tobacco have been cultivated on a small scale, and succeed well. The raising of cattle is the principal pursuit of the inhabitants, and the most profitable.

PIONEERS ESTIMATE ON CALIFORNIA.

The foreign commerce of Upper California employs from ten to fifteen sail of vessels, mostly large ships. Somewhat more than half of these are American, and belong exclusively to the port of Boston. The others are English, French, Russian, Mexican, Peruvian and Hawaiian. The French from their islands in the Pacific and the Russians from Kamtschatka, and their establishments on the northwest coast, resort here for provisions and live-stock. The exports consist of hides and tallow, cows, lard, wheat, soap, timber and furs. There are slaughtered annually about 100,000 head of cattle, worth $800,000. The whole value of the exports annually amounts to about $1,000,000. The largest item of imports is American cotton goods. The duties on imports are enormously high, amounting on the most important articles to 150 per cent. on the original cost, and in many instances to 400 or 500. Thus, as in most Spanish countries, a high bounty is paid to encourage smuggling. Whale ships visit St. Francisco annually in considerable numbers for refreshments, and fail to profit by the facilities for illicit commerce.

CALIFORNIA WILL BE A STATE.

"California, although nominally belonging to Mexico, 1844, is about as independent of it as Texas, *and must erelong share the same fate.* Since my residence here, no less than four Mexican Governors have been driven from the country by force of



THE HOME FARM OF A. S. AYERS. 1 MILE WEST OF GRANGEVILLE. TULARE CO. CAL.

ELLIOTT. LITH. 421 MONT. ST.

arms. The last of these, Micheltorena, with about 400 of his soldiers and 100 employés, were driven away about a year ago.

This occurred at the time that the rest of the nation was expelling his master, Santa Ana, although nothing of this was known here at the time. The new administration, therefore, with a good grace, highly approved of our conduct. In fact, the successive administrations in Mexico have already shown a disposition to sanction and approve of whatever we may do here, from a conscious inability to retain even a nominal dominion over the country by any other means. Upper California has been governed for the last year entirely by its own citizens. Lower California is in general an uninhabited and uninhabitable desert. The scanty population it contains lives near the extremity of the Cape, and has no connection and little intercourse with this part of the country. * * * *

INDIANS IN CALIFORNIA.

"I know not, since you have been so long engaged in more weighty concerns, if you take the same interest as formerly in Indian affairs, but since I have supposed your personal identity to remain, I shall venture a few remarks on the Aborigines of California. In stature the California Indian rather exceeds the average of the tribes east of the mountains. He is heavier limbed and stouter built. They are a hairy race, and some of them have beards that would do honor to a Turk. The color similar to that of the Algonquin race, or prehaps rather lighter. The visage, short and broad, with wide mouth, thick lips, short, broad nose, and extremely low forehead. In some individuals the hair grows quite down to the eyebrows, and they may be said to have no forehead at all. Some few have that peculiar conformation of the eye so remarkable in the Chinese and Tartar races, and entirely different from the common American Indian or the Polynesian; and with this unpromising set of features, some have an animated and agreeable expression of countenance. The general expression of the wild Indian has nothing of the proud and lofty bearing, or the haughtiness and ferocity so often seen east of the mountains. It is more commonly indicative of timidity and stupidity.

"The men and children are absolutely and entirely naked, and the dress of the women is the least possible or conceivable remove from nudity. Their food varies with the season. In February and March they live on grass and herbage; clover and wild pea-vine are among the best kinds of their pasturage. I have often seen hundreds of them gazing together in a meadow, like so many cattle. [Descendants of Nebuchadnezzar.—ED.]

"They are very poor hunters of the larger animals, but very skillful in making and managing nets for fish and food. They also collect in their season great quantities of the seeds of various grasses, which are particularly abundant. Acorns are another principal article of food, which are larger, more abundant, and of better quality than I have seen elsewhere. The Californian is not more different from the tribes east of the mountains in his physical than in his moral and intellectual qualities. They are easily domesticated, not averse to labor, have a natural aptitude to learn mechanical trades, and, I believe, universally a fondness for music, and a facility in acquiring it.

INDIANS OF THE MISSIONS AT LABOR.

"The Mission of St. Joseph, when in its prosperity, had 100 plough-men, and I have seen them all at work in one field each with his plough. It had also fifty weavers, twenty tanners, thirty shoe-makers, forty masons, twenty carpenters, ten blacksmiths, and various other mechanics. They are not nearly so much addicted to intoxication as is common to other Indians. I was for some years of the opinion that they were of an entirely different race from those east of the mountains, and they certainly have but little similarity. The only thing that caused me to think differently is that they have the same Moccasin game that is so common on the Mississippi, and what is more remarkable, they accompany it by singing precisely the same tune! The diversity of language among them is very great. It is seldom an Indian can understand another who lives fifty miles distant; within the limits of California are at least 100 dialects, apparently entirely dissimilar. Few or no white persons have taken any pains to learn them, as there are individuals in all the tribes which have communication with the settlements who speak Spanish.

INDIANS EASILY DOMESTICATED.

"The children, when caught young, are most easily domesticated and manifest a great aptitude to learn whatever is taught them; when taken into Spanish families, and treated with kindness, in a few months they learn the language and habits of their masters. When they come to maturity they show no disposition to return to the savage state. The mind of the wild Indian of whatever age, appears to be a *tabula rasa*, on which no impressions, except those of mere animal nature, have been made, and ready to receive any impress whatever. I remember a remark of yours some years ago, that "Indians were only grown-up children." Here we have a real race of infants. In many recent instances when a family of white people have taken a farm in the vicinity of an Indian village, in a short time they would have the whole tribe for willing serfs. They submit to flagellation with more humility than the negroes. Nothing more is necessary for their complete subjugation but kindness in the beginning, and a little well-timed severity when manifestly deserved. It is common for the white man to ask the Indian, when the latter has committed any fault, how many lashes he thinks he deserves.

INDIAN SIMPLICITY.

"The Indian, with a simplicity and humility almost inconceivable, replies ten or twenty, according to his opinion of the magnitude of the offense. The white man then orders another

Indian to inflict the punishment, which is received without the least sign of resentment or discontent. This I have myself witnessed or I could hardly have believed it. Throughout all California the Indians are the principal laborers; without them the business of the country could hardly be carried on.

"I fear the unexpected length of this desultory epistle will be tedious to you, but I hope it will serve at least to diversify your correspondence. If I can afford you any information, or be serviceable to you in any way, I beg you to command me. Any communication to me can be sent through the American Minister at Mexico, or the Commanding Officer of the Squadron in the Pacific, directed to the care of T. O. Larkin, Esq., American Consul in Monterey. I am, sir, very respectfully,

"Your obedient servant,

"HON. LEWIS CASS. JOHN MARSH."

[Dr. Marsh was murdered on the 24th of September, 1856. It occasioned much excitement at the time, as the Doctor was one of the oldest residents of the State. The murderers were Mexicans, who followed him as he was on the road towards home from Pacheco. The discovery of the horse and buggy in Martinez at early daylight, was the first knowledge of the affair. One of the murderers was arrested the next day. He was tried, but escaped from jail and eluded pursuit for ten years. He was again arrested, with his accomplice, P. Moreno, who was sentenced to State Prison for life, while the first was discharged. —EDITOR.]

INCREASED IMMIGRATION.

1840.—In the first five years of the decade commencing with 1840, there began to settle in the vast Californian valleys that intrepid band of pioneers, who, having scaled the Sierra Nevada with their wagons, trains, and cattle, began the civilizing influences of progress on the Pacific Coast. Many of them had left their homes in the Atlantic and Southern States, with the avowed intention of proceeding direct to Oregon. On arrival at Fort Hall, however, they heard glowing accounts of the salubrity of the Californian climate and the fertility of its soil; they therefore turned their heads southward, and steered for the wished-for haven. At length, after weary days of toil and anxiety, fatigued and foot-sore, the promised land was gained And what was it like?

CALIFORNIA IN A STATE OF NATURE.

The valleys were an interminable grain field; mile upon mile, and acre after acre, wild oats grew in marvelous profusion, in many places to a prodigious height—one glorious green of wild waving corn—high overhead of the wayfarer on foot, and shoulder-high with the equestrian; wild flowers of every prismatic shade charmed the eye, while they vied with each other in the gorgeousness of their colors, and blended into dazzling splendor.

One breath of wind and the wild emerald expanse rippled itself into space, while with the heavier breeze came a swell whose rolling waves beat against the mountain sides, and, being hurled back, were lost in the far-away horizon; shadow pursued shadow in a long, merry chase.

The air was filled with the hum of bees, the chirrup of birds and an overpowering fragrance from various plants. The hillsides, overrun as they were with a dense mass of tangled jungle, were hard to penetrate, while in some portions the deep dark gloom of the forest trees lent relief to the eye. The almost boundless range was intersected throughout with divergent trails, whereby the traveler moved from point to point, progress being, as it were, in darkness on account of the height of the oats on either side, and rendered dangerous in the valleys by the bands of untamed cattle, sprung from the stock introduced by the missions and early Spanish settlers. These found food and shelter on the plains during the night; at dawn they repaired to the higher grounds to chew the cud and bask in the sunshine.

THE HARDY PIONEERS.

What a life was that of the early pioneer, and how much of life was often crowded into a year, or, sometimes, even into a day of their existence! Now, that the roads are all made, and the dim trail has been supplanted by well-beaten and much-traveled highways, how complacently we talk and write and read of their deeds and exploits.

It has been theirs to subdue the wilderness, and change it into smiling fields of bright growing grain. Toil and privations, such as we can little appreciate now, was their lot for years. Poor houses, and even no houses at all, but a simple tent, or even an Indian wickiup, sheltered them from the rigors of the storm and the inclemency of the weather. The wild beasts of the woods were their night visitors, prowling about and making night hideous with their unearthly noises, and working the nerves of women, and often, perhaps of men, up to a tension that precluded the possibility of sleep and rest. Neighbors lived many miles away, and visits were rare and highly appreciated.

LAW AND ORDER PREVAILED.

Law and order prevailed almost exclusively, and locks and bars to doors were then unknown, and the only thing to fear in human shape were the petty depredations by Indians. For food they had the fruit of the chase, which afforded them ample meat, but bread was sometimes a rarity, and appreciated when had as only those things are which tend most to our comfort, and which we are able to enjoy the least amount of. But they were happy in that life of freedom from the environments of society and social usage. They breathed the pure, fresh air, untainted by any odor of civilization; they ate the first fruits of the virgin soil, and grew strong and free on its strength and freedom.

ARRIVAL OF CAPTAIN SUTTER.

The southern portion of California was essentially Spanish and Mexican in its population, while the northern part was left to the occupation of foreigners. The Sacramento Valley was comparatively unnoticed until after the settlement of Captain John A. Sutter at New Helvetia, but following that event, it became the theater for grand operations and achievements. Sutter's Fort was the nucleus about which congregated nearly all of the early emigrants, and the annexation of California is largely due to the influence of that gentleman and those associated with him. Ever hospitable and generous, he was a friend to whom the early settlers and explorers repaired for advice and sustenance.

1839.—Captain John Augustus Sutter was born in Baden Germany, at midnight, February 28, 1803, of Swiss parents After the completion of his education he became a Captain in the French army, but becoming tired of the superficial nature of French society and customs, he set out for America, to find some secluded spot where he might surround himself with a home and associations more in consonance with his ideas and tastes. New York was reached in July, 1834, and from there, after a sojourn of only one month, the Captain went to the far-famed "West." From here he journeyed to New Mexico and having heard of the marvelous beauty and fertility of California, he joined a party of trappers, expecting soon to reach his destination. But the journey ended at Fort Vancouver, and Captain Sutter's only way to reach California was to go to the Sandwich Islands and from there to take a sailing ship to Monterey. After waiting a long time in Honolulu he took passage in a ship bound for Sitka. By singular good luck the vessel was driven into San Francisco Bay, July 2, 1839.

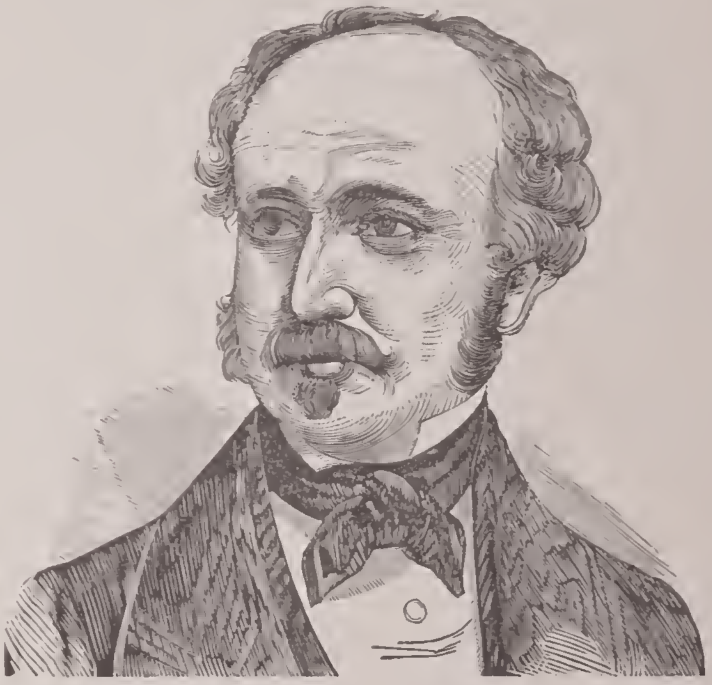
Captain Sutter, having reached the goal of his ambition, received permission from the Mexican authorities to select a place for settlement in the Sacramento Valley. After much difficulty he finally succeeded in reaching the junction of the Sacramento and American Rivers.

SUTTER'S FORT LOCATED

1840.—A location was made, and Captain Sutter commenced the construction of a house. The spot was named "New Helvetia," in honor of his mother country. On account of the strength, armament and formidable appearance of the buildings, the place was called by all the early settlers, "Sutter's Fort," which name is even now the most general one. This fort was commenced in 1842 and finished in 1844. In 1841, when his grant of land was to be made, it became necessary to have a map of the tract, and he employed for that purpose Captain Jean Vioget, a seamen and Swiss by birth. The survey was made by lines of latitude and longitude. Sutter made his application under this survey of 1841, the same year the map was completed. The Mexican laws allowed only eleven leagues to be granted to any one person, but Sutter's map contained fifty leagues or more. Nevertheless he got the idea that he could hold it, and with this came the idea that he could sell it. The original claim embraced a considerable portion of Sacramento and Placer Counties, all of Sutter, the valley portion of Yuba, and a little point of Colusa.

PIONEER PARTY OF 1839.

1839.—In the early part of 1839 a company was made up in St. Louis, Missouri, to cross the plains to California, consisting of D. G. Johnson, Charles Klein, David D. Dutton, mentioned earlier as having come to the country with Captain Smith and William Wiggins. Fearing the treachery of the Indians this little band determined to await the departure of a party of traders in the employ of the American Fur Company, on their annual tour to the Rocky Mountains. At Westport they were joined by Messrs. Wright, Gegger, a Doctor Wiselzenius and his German companion, and Peter Lassen, also two missionaries with their wives and hired man, *en route* for Oregon, as well as a lot of what were termed fur trappers, bound for the mountains, the entire company consisting of twenty-seven men and two women. At Fort Hall, Klein and Wiselzenius returned, thus reducing the number to twenty-five.



Gen. John A. Sutter.

In September, the company reached Oregon, and sojourned there during the winter of that year; but in May, 1840, a vessel arrived with missionaries from England, designing to touch at California on her return. Mr. William Wiggins, now of Monterey, the narrator of this expedition, and his three companions from Missouri, among whom was David D. Dutton, at present a resident of Vacaville, Solano County, got on board.

The vessel put in at Bodega, where the Russians were. The Mexican Commandant sent a party of soldiers to prevent them from landing. At this crisis, the Russian Governor ordered the Mexican soldiers to leave or be shot down. They then retired.] [Here our travelers were at a stand-still, with no means of proceeding on their journey, or of finding their way out of the inhospitable country; they therefore penned the following communication to the American Consul, then at Monterey:—

PORT BODEGA, July 25, 1840.

"*To the American Consul of California*—

"DEAR SIR: We, the undersigned citizens of the United States, being desirous to land in the country, and having been refused a passport, and been opposed by the Government, we write to you, sir, for advice, and claim your protection. Being short of funds, we are not able to proceed further on the ship. We have concluded to land under the protection of the Russians; we will remain there fifteen days, or until we receive an answer from you, which we hope will be as soon as the circumstances of the case will permit. We have been refused a passport from General Vallejo. Our object is to get to the settlements, or to obtain a pass to return to our own country. Should we receive no relief, we will take up our arms and travel, consider ourselves in an enemy's country, and defend ourselves with our guns.

"We subscribe ourselves,
"Most respectfully,
"David Dutton, Wm. Wiggins,
"John Stevens, J. Wright."
"Peter Lassen,

PIONEER PARTY OF 1841.

1841.—May 8, a party of thirty-six persons left Independence Missouri, bound for California. They passed near Salt Lake to Carson River, and then to the main channel of Walker's River. Near its source they crossed the Sierras, and descended into the San Joaquin Valley. They crossed the San Joaquin River at the site of the present railroad bridge; and, reaching the ranch of Dr. Marsh, at the base of Mount Diablo, the eyes of the party were refreshed with the first signs of civilization which had greeted them from the time of leaving Fort Laramie.

Of this adventurous little band who braved the hardships and dangers of a journey, then occupying months, which can now be compassed within a week, a number are still living in California, among whom may be mentioned General John Bidwell of Chico—of which he is the honored founder—having filled high public stations which mark the esteem and confidence reposed in him by his fellow-citizens, not only of his own immediate home, but of the entire State; Captain Charles M. Weber, one of the most prominent of the pioneer citizens of Stockton, who died in 1880; Josiah Belden, one of the oldest residents of San Jose.

This party disbanded at Dr. Marsh's, and became scattered throughout the State. Many of these emigrants have played such important parts in the early history of California that a few of the principal names are appended:—

Col. J. B. Bartleson,	Captain of the party. Returned to Missouri. Is now dead.
Gen. John Bidwell,	Resides in Chico, Butte County.
Col. Joseph B. Childs,	Resides in St. Helena, Napa County.
Josiah Belden,	Resides at San José and S. F.
Charles M. Weber,	Resided in Stockton. Died in 1880.
Charles Hopper,	Resides in Yountville, Napa County.
Henry Huber,	Resides in San Francisco.
Michael C. Nye,	Resides in Oregon.
Green McMahon,	Resides in Vacaville, Solano County.
Benj. Kelsey and wife,	Reside in Santa Barbara County.
Andrew Kelsey,	Killed by the Indians at Clear Lake.
Robert H. Thomes,	Died March 26, 1878, at Tehama.
Elias Barnett,	Lives in Yountville, Napa County.
J. P. Springer,	Died at or near Santa Cruz.

FIRST SETTLEMENTS IN THE VALLEY.

1841.—It is a fact that there was not a house in the Sacramento or San Joaquin Valleys in 1841, except those of Sutter and Dr. Marsh. Sutter had one adobe house and a few huts, but his fort was not completed until sometime afterwards.

After the settlement of New Helvetia, the next point where a dwelling was located was about two miles northeast of the fort on the American River, in 1841. This was settled by John Sinclair for Captain Elias Grimes and Hiram Grimes, to whom Sutter afterwards sold it. It made a fine ranch and farm, and was extensively stocked.

1842.—Nicolaus Allgeier, in 1842, was placed on what is known as the town of Nicolaus, on the east bank of Feather River. The next two places of Gordon and Baca were settled in the fall of this year. Hock Farm, which subsequently became the home of Captain Sutter, was established and made his principal stock-farm, the animals ranging over that part of Sutter County lying west of Feather River, and south of the Butte Mountains.

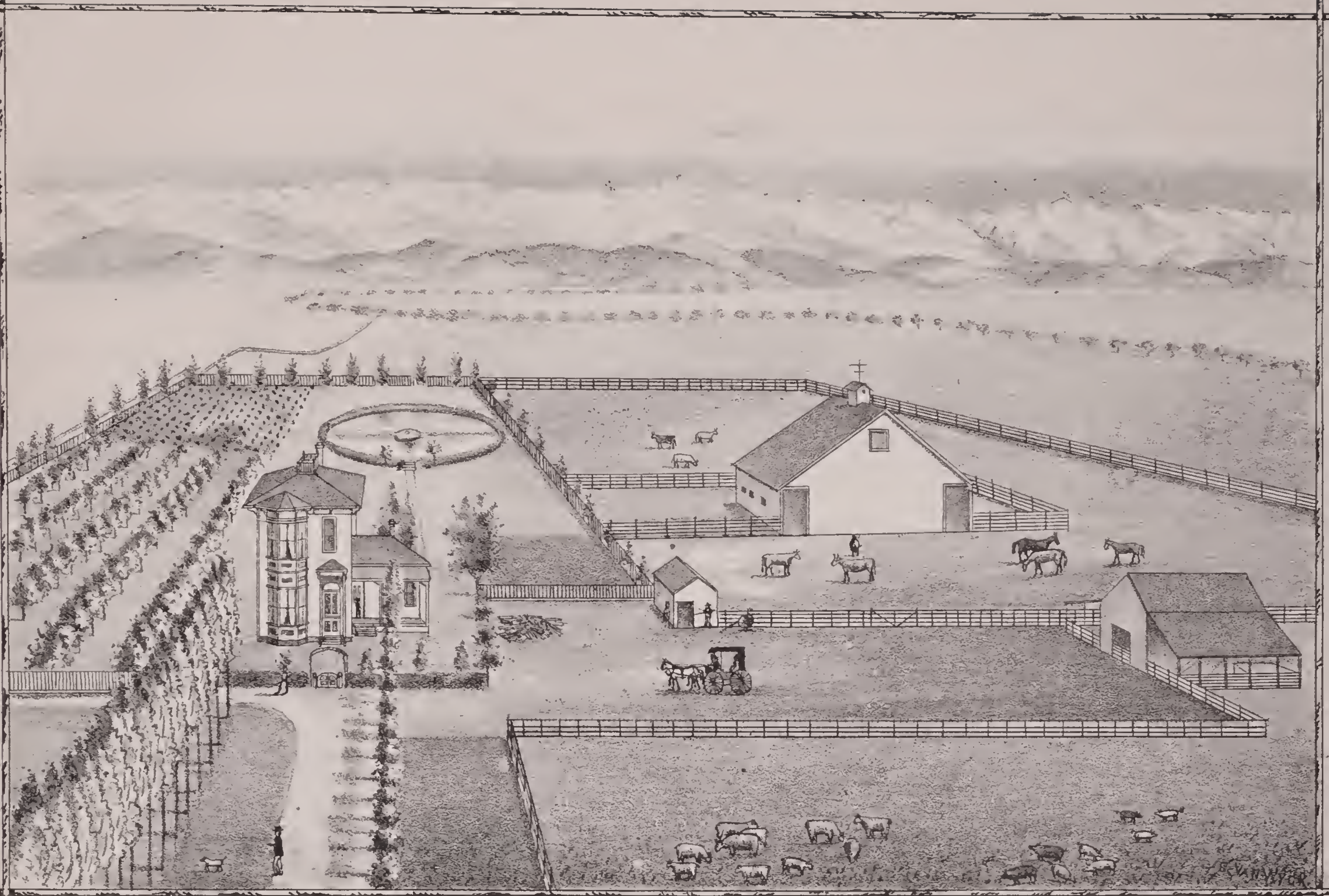
The land in the vicinity of Marysville was leased to Theodore Cordua. Cordua made a stock-farm of it to a limited extent. Marysville is located where he erected, at what is now the foot of D Street, an abode dwelling-house, a store-house or trading room, culinary department and out-houses. The walls of the dwelling were thick, and well constructed for withstanding a siege. The spot was named "New Mecklenburg" by Captain Sutter, in honor of the place of nativity of Cordua. It soon became known, however, as Cordua's Ranch.

William Gordon settled on his ranch on Cache Creek, in Yolo County, in the fall of 1842. The place now known as Vacaville was settled about the same time by Manual Baca, from New Mexico.

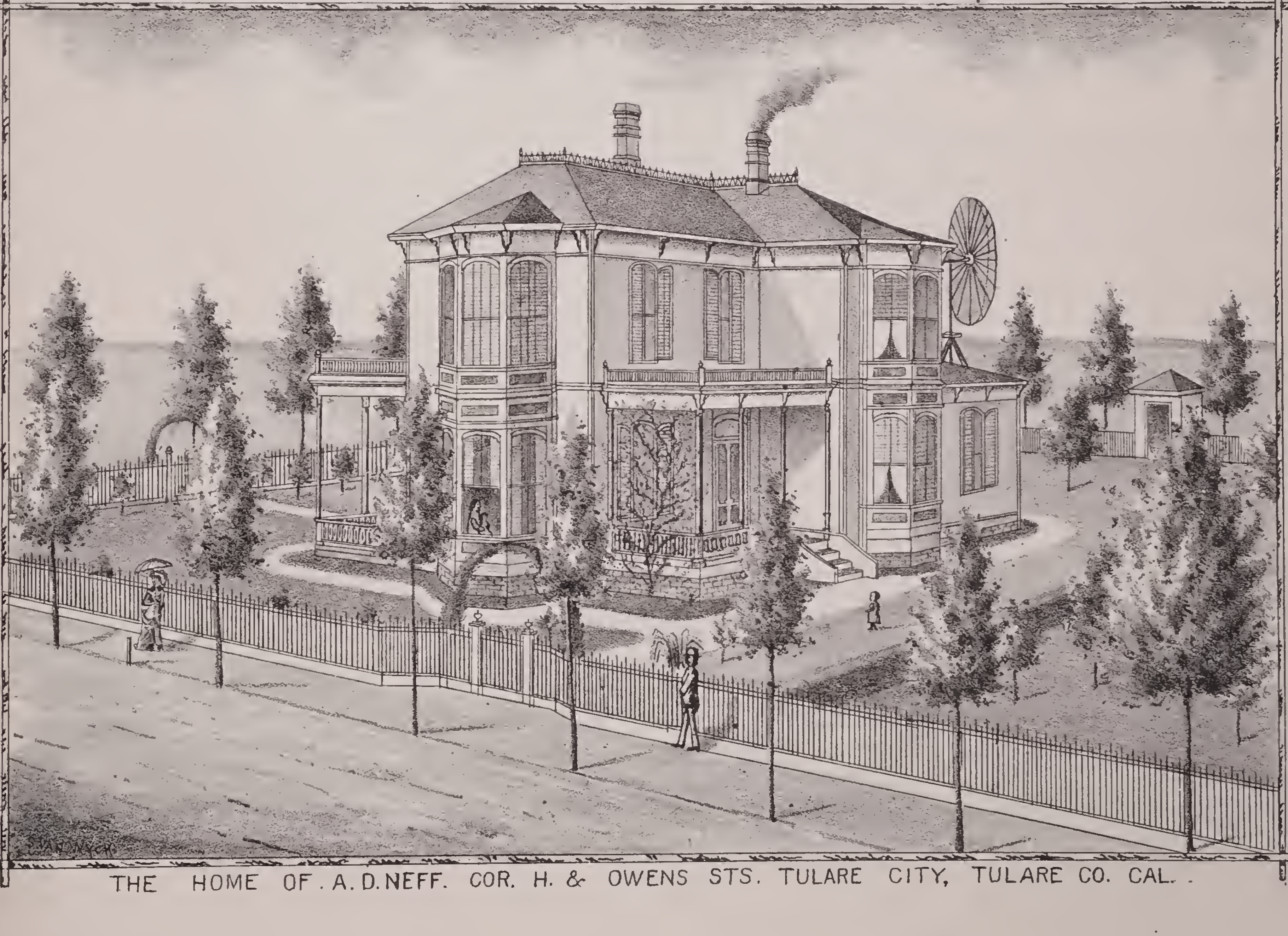
PIONEER PARTY OF 1843.

1843.—In the fall of this year, a party arrived across the plains *via* Fort Boise and Pit River. They came down the west bank of the Sacramento River into what is now Colusa County, crossed the river below the mouth of Stony Creek.

Major P. B. Redding, who was with this party, sketched the land about the mouth of Stony Creek, and not being entitled to receive a grant himself, gave the map to the wife of Dr. Stokes, of Monterey, who was a Mexican woman, and she obtained a grant, giving Redding two leagues, or perhaps half the grant, for his locations. This was the first grant made within the limits of Colusa County, and the first settler on the grant was a man by the name of Bryant, who built a house and raised some corn in 1846.



RANCH RESIDENCE OF M. M. BURNETT. 6 MILES SOUTH OF TULARE CITY, TULARE CO. CAL.



THE HOME OF A. D. NEFF. COR. H. & OWENS STS. TULARE CITY, TULARE CO. CAL.

Wolfskill settled on his grant on Putah Creek, south of Cache Creek, and south of Gordon's grant, in 1843.

General John Bidwell says: "In my trip up the valley, in 1843, I went as far as the present town of Red Bluff. I was in pursuit of some stolen animals, and was in haste to overtake a party going to Oregon, which I did, and recovered the animals. My party consisted of Peter Lassen, James Bruham, and an Indian.

"In the summer of 1843, a company arrived from 'the States' *via* Oregon, where they had wintered. This party was under the lead of L. W. Hastings, and N. Coombs, of Napa, was one of the party. Hastings was so well pleased with the land lying on the west bank of the Sacramento River just below the present town of Colusa, that he got me to make a map of it, intending to apply for a grant. He did not succeed, however. Some two or three of Hasting's party—their names I do not now recall—were in the habit of shooting at Indians, and had killed two or three before reaching the Colusa village, which was the only known point within about forty miles above, and thirty miles below, where horses could be watered from the river. At last the Indians became alarmed, and the tribe ahead had notice of the coming of the Oregon party. On attempting to approach the river at Colusa the Indians attacked them. For this they were reported hostile, and Sutter went with about forty men—mostly Indians whom he had taught the use of fire-arms and whom he employed as hunters and trappers—and punished them severely. Many Indians were killed—mostly of the Willy tribe. Sutter's forces crossed the river six or seven miles above Colusa on a bridge built by the Indians—the Duc-Ducs, I believe—for fishing purposes. This bridge was about sixty feet wide and very long, for the river was wide but not deep.

"On my return from Red Bluff in March, 1843, I made a map of this Upper Sacramento Valley, on which most of the streams were laid down, and they have since borne the names then given them.

FIRST SETTLEMENT NORTH OF SUTTER'S FORT.

"Peter Lassen then selected what afterward became his grant on Deer Creek (now in Tehama County), and it was the first place selected and settled north of Sutter's grant. He started there in December, 1843, but camped at Sutter's Buttes (now called Marysville Buttes or Butte Mountains) till January or February, 1844, before proceeding to his destination. Several other places were examined and mapped in 1843, but little was done in this line till 1844, because those who wanted the land had not been here long enough to become citizens and be entitled to receive a grant."

Knight's grant, on the Sacramento River, was settled by himself, in 1844. The settlement by Samuel Neal and David Dutton on Butte Creek, about seven miles south of Chico, was made in 1844. About the same time Edward A. Farwell, with Thomas Fallon, settled on his grant on Chico Creek, about a mile below the present town site of Chico. The same year, but a little later, a settlement was made on the present property of General John Bidwell, by William Dickey, who obtained the grant.

PIONEER PARTY OF 1844.

1844.—This party consisted of eleven wagons, twenty-six men, eight women and about a dozen children. Let us give the names: Dr. John Townsend and wife; Martin Murphy, Sr.; Martin Murphy, wife and four sons—James, Martin S., Patrick W., Bernard D.; James Murphy, wife and one child—Mary F.; Bernard Murphy (unfortunately killed on board the *Jenny Lind* in 1853; Miss Ellen Murphy (the present Mrs. Weber, of Stockton); John M. Murphy, Daniel Murphy, Jas. Miller, wife and four children; Allen Montgomery and wife, Captain Stevens, Mr. Hitchcock, Mrs. Peterson and family, Mat Harbin, Moses Schallenberger, John Sullivan, his sister and two brothers, Robert and Mike; John Flomboy, Joseph Foster, Oliver and Francis Marguet, Mr. Mastin, Sr., Dennis Mastin, Pat Mastin, John and Brittain Greenwood, and old Mr. Greenwood. About May 1, 1843, these intrepid pioneers started from Council Bluffs to undertake the untried journey which lay before them, little thinking of its thousand dangers and vicissitudes, hardships enough to deter the bravest.

From December until March, 1844, the party encamped near Donner Lake, and while at this place the first child of white parents born in California saw the light. This was a daughter to Mr. and Mrs. Martin Murphy, a young lady who received the name of Elizabeth, and afterwards became Mrs. William P. Taffe.

Martin Murphy purchased a property on the American Fork, from a man named Rufus, comprising two leagues, and there dwelt until 1850, when he disposed of it and removed to Santa Clara Valley, when he purchased the homestead on which he now resides.

The golden anniversary of their wedding was celebrated on the 18th of July, 1881, with all the *éclat* that wealth could throw around it, and the thousands of friends who paid their respects on that day loudly demonstrated the high estimation in which Martin Murphy and his family are held by the people of California, who look upon him who first broke a wagon trail across the Sierras as the *avant courier* of a higher civilization.

TRUCKEE, THE INDIAN GUIDE.

The dangers of the plains and mountains were passed, and the party reached the Humboldt River, when an Indian named Truckee presented himself and offered to guide them to California. After questioning him closely, they employed him as their guide, and as they progressed found that the statements he had made about the route were fully verified. He soon became a great favorite among them, and when they reached the lower crossing of the Truckee River, now Wadsworth, they gave his name to the beautiful stream, so pleased were they by the pure water and abundance of fish to which he had directed them. The stream will ever live, in history, as the Truckee River.

CONSTRUCTION OF VESSELS.

1845.—William Hardy came ashore from a whale-ship in the latter part of the year 1845. He first went to work as a carpenter for Thomas O. Larkin, in Monterey. He had not been employed in this way long before Roselean and Sansevain sent over to Monterey for carpenters to come to Santa Cruz and build a schooner. Mr. Hardy came, among others, and they went to work on the vessel. The vessel was completed in 1846, and was called the *Santa Cruz*, and sailed to the Sandwich Islands to be coppered. She returned, and was lost at sea.

THE FIRST GRINDSTONES.

Mr. W. C. Moon settled at "Moon's Ranch," in Tehama County, in 1845, and with him a noted hunter and Indian fighter by the name of Merritt. They, with Peter Lassen, made a large canoe-load of grindstones, on Stony Creek, in Colusa County, in 1845, and packed them on mules over twenty miles to the river. They sold a few at Sutter's Fort, and peddled the rest out all round the Bay of San Francisco. When the canoe left Sacramento it was laden to within six inches of the top. As they proceeded from point to point the canoe became lighter, of course; but, at first, it seemed anything but safe, even for inland navigation.

THE CELEBRATED ALCALDE.

In the year 1845 Mr. William Blackburn came to Santa Cruz. He came over the plains from Independence, Missouri, and arrived here in October. He was a native of Virginia, born in 1814. He came over the country in company with Jacob R. Snyder, George McDougal and Harvey Speel.

They stopped together on the Zyante and went to making shingles. William Blackburn was a cabinet-maker by trade, and in the year 1844 worked at that business in New Orleans. But men arriving in California, of course, took hold of any business that would pay. So these men seem to have been still engaged in lumbering and shingle-making when the Bear flag went up in Sonoma.

When the Bear Flag Battalion came marching down towards Monterey, early in July, 1846, William Blackburn and his associates joined it. Just now, too, the United States flag went up in Monterey, and the battalion went south to see that its authority was acknowledged. In due time Blackburn returned to Santa Cruz and went into the merchandizing business, establishing himself in the old adobe building fronting on the upper plaza.

In the year 1847 he was appointed alcalde by Governor Mason, and for a year or two dispensed justice in a way peculiarly his own, as some of the old records of his court will show.

BLACKBURN AS ALCALDE.

Many curious illustrations of it could be given, but we will instance one or two. Many enlarged stories have been told of Judge Blackburn, but these here mentioned are taken from the records, or from living witnesses' statements.

The alcalde records in the County Clerk's office of Santa Cruz of date of August 14, 1847, show that on that day a jury tried Pedro Gomez for the murder of his wife, Barbara Gomez, and found him guilty.

Sentence of the Court: "That the prisoner be conducted back to prison, there to remain until Monday, the 16th of August (two days only), and then be taken out and shot."

"August 17. Sentence carried into effect on the 16th accordingly. W. Blackburn, Alcalde."

Pretty summary justice that! It should, perhaps, be stated that, according to law, Judge Blackburn ought to have reported the trial of this criminal to the higher Court in Monterey, and have had the action of his Court sanctioned, before the execution. For some reason he did not do this, but had the criminal shot, and then reported both the trial and execution to headquarters!

This did not quite suit Governor Mason's ideas of propriety, even in that lawless time, and some pretty sharp correspondence followed between the Governor and Judge Blackburn. This exact course of procedure does not seem to have been repeated!

A TOUCHING SCENE.

But there was a sequence, on the 21st of August, before the Court, that is touching, indeed. Josepha Gomez and Balinda Gomez, orphan children of a murdered father and murdered mother, were brought into Court—two little girls—to be disposed of by the Court.

The Court gave Balinda, eleven years old, to Jacinto Castro "to raise" until she was twenty-one years of age, unless she was sooner married; the said Jacinto Castro obligating himself to give her a good education, and three cows and calves at her marriage, or when she arrives of age.

The Court gave Josepha, nine years old, to Alexander Roderiguez, with some similar provision for her education and care. But it is a sorry feeling that comes over us as we seem to see these poor little orphan girls parted there to go among strangers. It is hoped their lives have been less a grief than their childhood.

SERVED HIM RIGHT.

But in Court, still further, November 27, 1847, the case of A. Roderiguez *vs.* one C———; plaintiff sued defendant, a boy, for shearing his horse's mane and tail off. It was proved that the defendant did the shearing.

An eye-witness of the trial says that when it came to the matter of the sentence, Judge Blackburn looked very grave, and his eyes twinkled a good deal, and he turned to his law book, and examined it here and there, as if looking up authorities touching a very important and perplexing case. All at once he shut up his book, sat back in his chair, and, speaking with a solemn tone, said:

"I find no law in any of the statutes applicable to this case, except in the laws of Moses—'An eye for an eye and a tooth for a tooth.' Let the prisoner be taken out in front of this office and there be sheared close."

The sentence was literally carried into effect, to the great satisfaction and amusement of the native inhabitants, who expressed their approval by saying, "It served him right."

BLACKBURN'S CAREER.

In the year 1845 he crossed the plains from Independence, Missouri, to California, in the company of Jacob R. Snyder, George Williams, George McDougal and Henry Speel, all being leading men in the company. They arrived in this county in October of that year, and settled on the Zyante, where Blackburn, Snyder and McDougal engaged in the shingle business. Speel left the party at Fort Hall for Oregon, but arrived in California in 1846.

Blackburn, with all of these fellow-travelers, was in Fremont's battalion, under the Bear flag, Blackburn being First Lieutenant of Artillery, Company F—Captain McLane. At the battle of Buenaventura, Lieutenant Blackburn fired the first gun, loading and handling it. During that campaign Snyder was the Quartermaster. They continued in the service till the treaty of Couenga, when they returned to Santa Cruz as their home, Blackburn opening a store on the old plaza, which was also an open hotel, for no white man was ever asked pay for supper or lodging; but anything there was in the house was at the service of the guest; open-handed hospitality being the character of host and people in those primitive times, here as elsewhere, throughout California. McDougal settled in Gilroy.

BLACKBURN AS JUDGE.

During those stormy periods of anarchy and lawlessness he performed the duties of the office to the entire satisfaction of all; and although his decisions cover points of all the varied questions of jurisprudence, we believe none have ever yet been reversed by any higher Court. His pretensions were not based on Coke or Littleton, but on common sense and justice. The records of his Court are as amusing as the jokes of "Punch."

Blackburn, as Judge, was always anxious that the law and justice should be fully and quickly vindicated, and, after passing sentence, would give no delay to its execution; for, although it was the rule for his decisions to be sent to the Governor for approval, they were generally sent after the execution, so that there should be no chance for a delay of justice. Although that might seem to be summary proceeding, yet it met the approval of the people over whom he governed, but at times was the cause of some sharp and terse correspondence between himself and his superiors.

In 1848 he resigned his office to go to the gold region. He returned to Santa Cruz in 1849, and was appointed a Justice of the Peace under the Territorial Government.

BLACKBURN'S FARMING PROFITABLE.

In 1851 he settled on his homestead in Santa Cruz, and commenced farming in company with his brother, Daniel Blackburn, and they planted the bottom with potatoes, and such was the enormous yield of the whole bottom that at thirteen cents per pound, the then price of potatoes, the yield was nearly $100,000; and for several years the profits of potato raising were enormous. Where the house now stands four acres yielded $1,200 worth of potatoes to the acre; they were early, and brought 12½ cents per pound. Next year thirteen acres were rented to Thomas Weeks at $100 per acre, full payment in advance.

BLACKBURN'S PREMIUM POTATOES.

From this place the Judge sent samples of potatoes of four pounds weight (which was a general average), to the Crystal Palace Fair at New York, and received a premium for the finest potatoes ever known. From here also was derived the fame which Santa Cruz now holds of producing fine potatoes.

In 1848 Judge Blackburn built a vessel, a schooner of about fifty tons burden, called the *Zach Taylor*, and Captain Vincent commanded it. When Monterey ceased to be the headquarters of the Pacific, the vessel was run on the Sacramento River. He was also concerned in building the first saw-mill up the Blackburn Gulch.

He was considered a man of enterprise and improvement, and we find him from his start towards the Pacific to have been a man of note, first as one of the leaders in the train with which he journeyed; again a commander and soldier in the first war towards the generation of a Pacific Government; then, as a jurist, his history is recorded in the archives of the country; finally as an agriculturist, his mark was made and is on record in the proceedings of the Crystal Palace World's Fair, New York, which was also probably the first visible knowledge demonstrating to the East the capabilities of California to raise her own food.

FIRST PROTESTANT WORSHIP.

1846.—Mr. A. A. Hecox appears to have commenced the first Protestant public worship in California. He was an authorized Christian minister in the Methodist Episcopal Church. Worship was first held at the house of John D. Green, in August, 1847, and after that in the house of J. G. T. Dunleavy.

Mr. Hecox thinks he preached the first Protestant sermon in California at the funeral of a Miss Hitchcock, who died at San Jose, about December, 1846.* Feeble in body and leaning upon a staff he made his way to the house of mourning, where he found a few of the relatives of the deceased, who had assembled to bid farewell to their departed sister, who had fallen far,

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*See Elliott's History of Santa Cruz County.

far from home. His remarks were based upon the following words: "Remember how short my time is."

The first Methodist class was formed in the latter part of February, 1848, and the Rev. E. Anthony elected preacher, and Mr. Hecox appointed in charge of the work in San Jose.

The gold discovery, however, drew off the people very suddenly in the latter part of the year, and public worship was practically suspended for the time.

Alfred Baldwin came in 1846. When a boy, living in Delaware County, New York, he got very much interested in this Pacific region through reading Lewis and Clark's journal.

The desire to see this country that was said to have no cold winters, grew upon him. Being in St. Louis in 1845, when a party was starting overland to Oregon, he embraced the opportunity and joined it.

They reached their destination in the fall of 1845. Mr. Baldwin came to San Francisco early in 1846. He very soon enlisted under Purser James H. Watmough, purser of the sloop of war *Portsmouth*, with others, to see that there was no resistance to the flag of the United States, which had then just been raised. They were stationed at San Jose.

THE SAN JOAQUIN.

While they were there news came down from the Mission San Jose, that Indians from the San Joaquin neighborhood were making their usual raids and stealing all the horses they could lay hands on.

This was an old habit of the Indians, and frontier ranchos, like Marsh's or Livermore's, could not keep horses.

The spirit of the new flag did not propose to submit to these depredations. So, very promptly, Captain Watmough organized a party to go and look after these matters. It consisted of some twenty-five or thirty men.

They went to the Indians' lurking place on the Stanislaus River, and there camped for the night. By and by, in the darkness, a band of horses came rushing on them.

The Indians had stolen them from around the mission, as before remarked, and now as they thought they were driving them into their own secure retreat, they were driving them into the hands of our encamped force. The horses were secured and brought back, but the Indians themselves succeeded in getting away into the willows and thickets.

Returning to San Jose, the party was ordered at once to go south in a vessel named *Sterling* to help take care of things there. Getting a little below Monterey, they met the *Vandalia* coming up with orders that they should return to Monterey, and there fit out an expedition and proceed, in force, down the coast by land. Back to Monterey they came. Men were sent to the Sacramento Valley to get horses to mount the expedition. Mr. Baldwin, meanwhile, worked at his trade in Monterey, getting the harnesses ready for the hauling of the cannon.

STRUGGLE FOR AMERICAN RULE.

In the month of November, 1846, the requisite number of horses having been obtained, they were about to be driven across the Salinas plain toward Monterey.

But just here, Pio Pico, who had heard of this coming band of horses, confronts them with a force of Californians.

Before he gets the horses, however, the men in charge of them turn them aside to a rancho in the hills, and on the next day go out to disperse the opposing California forces.

The battle of the Salinas resulted, and it went very hard with our few men. It is said to have been the only battle during the struggle for American rule in California that did go hard with our forces. The record is that Captain Foster, the officer in command, was killed, and eleven of his men. But the horses were not captured. That night their faithful Indian guide, "Tom," broke through and carried the news to Monterey. The entire force there marched immediately over to the Salinas, but no enemy was any longer to be found. The horses were obtained, the expedition was gotten ready, and moved down the country. Of course in December and onward they encountered the rainy season, and the storms in the St. Inez Mountains were terrible; but they got through at last, and accomplished the object of their equipment.

WORDS OF A PIONEER.

Hon. Elam Brown, who resides at Lafayette, Contra Costa County, was prominent and active in aiding to establish the rule of the Americans. He was a member of the convention that formed the Constitution at Monterey.

Mr. Brown participated in the first two sessions of the Legislature. What he lacked in ability and knowledge, he in a great measure made up in industry and economy.

Mr Brown tells us: "I was eighty-three years old the 10th day of last June. I labor under the same embarrassment that the hunter did who could not shoot a duck; for when he took aim at one, another would put its head in the way. I find much less difficulty in collecting than in selecting incidents. My own and Mr Nathaniel Jones' families were the first Americans that settled within the present bounds of this, Contra Costa, County. There were no white families nearer than San José Mission. I settled on my present farm in 1848, and I expect to remain on it the balance of my time on earth." *

Mr. Brown disclaims any praise over the tens of thousands of others who have equally participated and aided in the great work of reclaiming the vast waste of wilderness, that seventy-six years ago was almost entirely occupied by the native Indians and wild beasts, but now covered over with organized States, counties, cities, towns and farms, with all the comforts and conveniences of art and science that civilization confers. Being an eye-witness in the front line of a long march, the picture is plain. The work is large to those who have not seen

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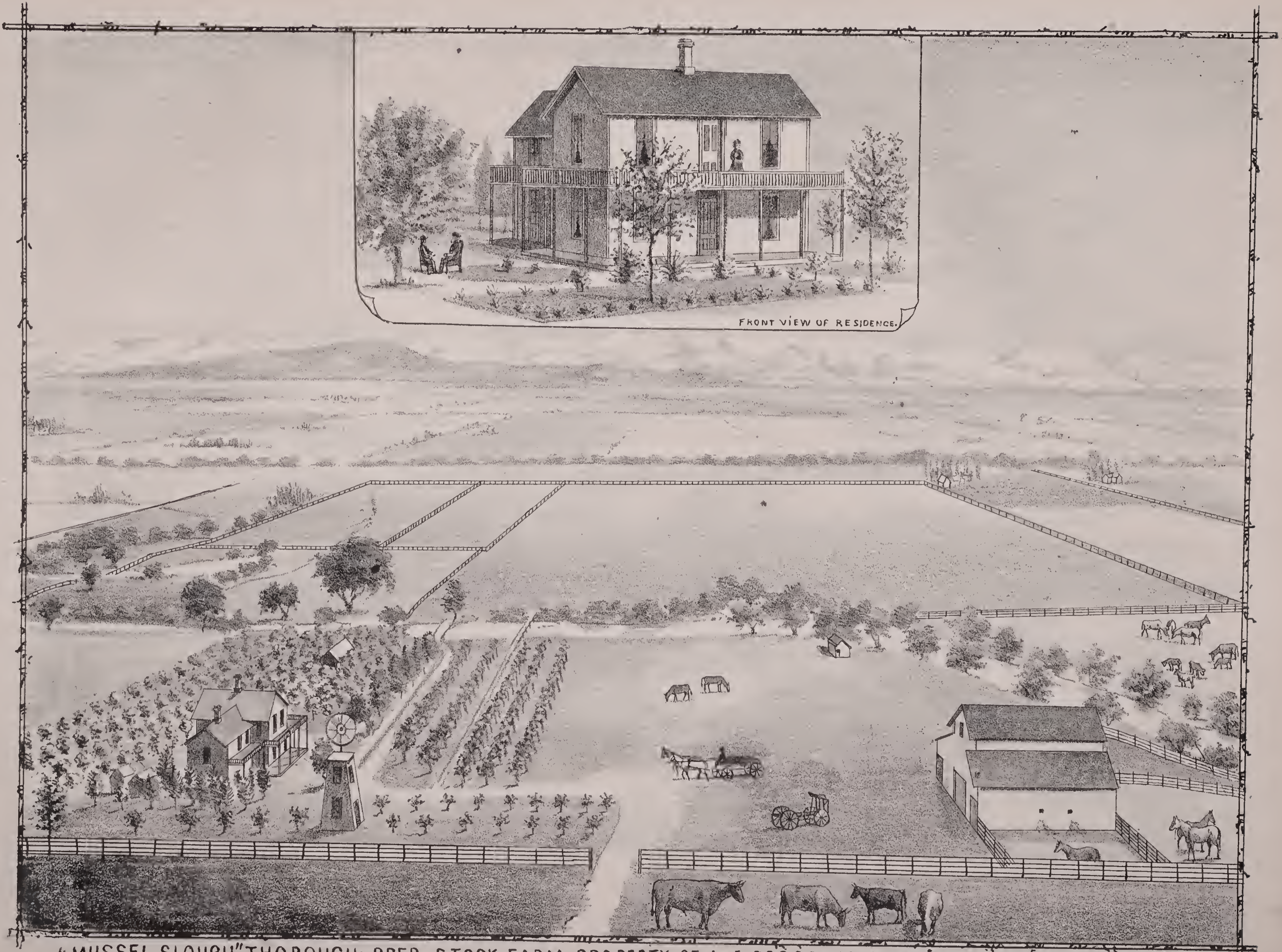
*Elliott's History of Contra Costa County.


FRONT VIEW OF RESIDENCE.

“MUSSEL SLOUGH” THOROUGH-BRED STOCK FARM, PROPERTY OF A. J. SCOGGINS, LEMOORE, TULARE CO. CAL.

the beginning and end of the whole extraordinary advance of settlement and civilization in America from the year 1804 to 1880.

FIRST CAST PLOW.

1846—Elihu Anthony came to California in 1846, from Indiana. He stopped first in San Jose, but moved with his family to Santa Cruz in January, 1848.

Mr. Anthony's foundry made the first cast-iron plows ever constructed in California. Patterns were obtained from the East in 1848, and the castings made and attached to the proper wood-work. Previous to this they had been imported and sold at high figures. The modern plow was at this time supplanting the old Mexican affair, illustrated and described elsewhere.

FIRST MINING PICK.

At this same foundry were made, in the spring of 1848, the first picks for mining purposes. As soon as the report of gold discovery was known in Santa Cruz, Anthony went to manufacturing picks for miners' use. He made seven and a half dozen. They were light and weighed only about three pounds each.

Thomas Fallon, now of San Jose, took them with his family in an ox-team across the mountains to the Sutter mines, or mill, to dispose of them. He sold nearly all of them at three ounces of gold each; but the last of the lot brought only two ounces each, as by this time other parties had packed in a lot from Oregon.

These were some of the men who were at the head of affairs here in that stirring transition period between the two flags, the Mexican and that of the United States, and the introduction of California as a State of the American Union. This brings us to what is known as the Bear Flag War.

FIRST WHITE WOMAN ARRIVED.

Mrs. Mary A. Kelsey crossed the plains at the age of eighteen years. She left Jasper County, Missouri, with her husband, Benjamin Kelsey, in the spring of 1841. She was the only woman in that party, which consisted of thirty-three persons, of which General Bidwell and others were members, as mentioned on page 48. She and her husband remained at Sutter's Fort until 1843. They then went to Oregon and resided in Willamette Valley until 1844. Getting dissatisfied with that locality they moved to Napa, and Kelsey was present at the capture of Sonora in 1846. In 1851 they again went to Oregon and remained until 1855, and then again returned to California. In 1856 they pulled out for Texas, which State they reached in 1858, and remained there several years. Finally they decided that no place was like California, and returned and located near Stockton.

We have now given the names of some of the leading arrivals previous to the discovery of gold, and leading incidents in their active lives.

Bear Flag War.

During the year 1846, the American settlers, many of whom had married Spanish ladies, learned that it was the intention of General Castro, then Governor of California, to take measures for the expulsion of the foreign element, and more especially of the Americans. Lieut. John C. Fremont of the United States Topographical engineers, was then camped at the north end of the Buttes, being on his way to Oregon. The settlers sent a deputation to him, asking him to remain and give them the protection of his presence. He was afraid of a court-martial; but they argued with him that if he would take back to Washington his broken Lieutenant's commission in one hand and California in the other, he would be the greatest man in the nation. The bait was a tempting one. Fremont hesitated; but they kept alluring him nearer to the scene of action. On the 9th of June, 1846, there were some thirteen settlers in his camp at the mouth of the Feather River, when William Knight, who had arrived in the country from Missouri in 1841, and had married a Spanish lady, came and informed them that Lieutenant Arci had passed his place—now Knight's Landing—that morning, going south, with a band of horses, to be used against the Americans in California.

THE SETTLERS ORGANIZE.

The settlers organized a company with Ezekiel Merritt, the oldest man among them, as captain, and gave chase to Arci. They overtook him on the Cosumne River, and captured him and his horses. The Rubicon was now passed, and there was nothing to do but to go ahead. When they got back to Fremont's camp they found other settlers there, and on consultation it was determined to capture Sonoma, the headquarters of General M. G. Vallejo, the military commander of Northern California. They gathered strength as they marched along, and when they got to John Grigsby's place in Napa Valley, they numbered thirty-three men. Here the company was reorganized and addressed by Dr. Robert Semple, afterwards President of the Constitutional Convention. We give the account of the capture in General Vallejo's own words, at the Centennial exercises held at Santa Rosa, July 4, 1876.

"I have now to say something of the epoch which inaugurated a new era for this country. A little before dawn on June 14, 1846, a party of hunters and trappers, with some foreign settlers, under command of Captain Merritt, Doctor Semple, and William B. Ide, surrounded my residence at Sonoma, and without firing a shot, made prisoners of myself, then commander of the northern frontier, of Lieutenant-Colonel Victor Prudon, Captain Salvador Vallejo, and Jacob P. Leese. I should here state that down to October, 1845, I had maintained at my own expense a respectable garrison at Sonoma, which often, in union with the settlers, did good service in campaigns against the Indians; but at last, tired of spending money which the

Mexican Government never refunded, I disbanded the force. and most of the soldiers who had constituted it left Sonoma, Thus in June, 1846, the plaza was entirely unprotected, although there were ten pieces of artillery, with other arms and munitions of war. The parties who unfurled the Bear Flag were well aware that Sonoma was without defense, and lost no time in taking advantage of this fact, and carrying out their plans.

"Years before, I had urgently represented to the Government of Mexico the necessity of stationing a sufficient force on the frontier, else Sonoma would be lost, which would be equivalent to leaving the rest of the country an easy prey to the invader. What think you, my friends, were the instructions sent me in reply to my repeated demands for means to fortify the country? These instructions were that I should at once force the emigrants to recross the Sierra Nevada, and depart from the territory of the Republic. To say nothing of the inhumanity of these orders, their execution was physically impossible—first, because the immigrants came in autumn, when snow covered the Sierras so quickly as to make a return impracticable.

"Under the circumstances, not only I, but Commandante General Castro, resolved to provide the immigrants with letters of security, that they might remain temporarily in the country. We always made a show of authority, but well convinced all the time that we had no power to resist the invasion which was coming upon us. With the frankness of a soldier I can assure you that the American immigrants never had cause to complain of the treatment they received at the hands of either authorities or citizens. They carried us as prisoners to Sacramento, and kept us in a calaboose for sixty days or more, until the authority of the United States made itself respected, and the honorable and humane Commodore Stockton returned us to our hearths."

FIRST MOVEMENT FOR INDEPENDENCE.

On the seizure of their prisoners the revolutionists at once took steps to appoint a Captain, who was found in the person of John Grigsby, for Ezekiel Merritt wished not to retain the permanent command. A meeting was then called at the barracks, situated at the northeast corner of the plaza, under the presidency of William B. Ide, Dr. Robert Semple being Secretary.

At this conference Semple urged the independence of the country, stating that having once commenced they must proceed, for to turn back was certain death. Before the dissolution of the convention, however, rumors were rife that secret emissaries were being dispatched to the Mexican rancheros, to inform them of the recent occurrences, therefore to prevent any attempt at a rescue, it was deemed best to transfer their prisoners to Sutter's Fort, where the danger of such would be less.

RESOLVED TO ESTABLISH A GOVERNMENT.

Before transferring their prisoners, however, a treaty, or agreement was entered into between the captives and captors, which will appear in the annexed document kindly furnished to us by General Vallejo, and which have never before been given to the public.

"We, the undersigned, having resolved to establish a government upon Republican principles in connection with others of our fellow-citizens, and having taken up arms to support it, we have taken three Mexican officers as prisoners; Gen. M. G. Vallejo, Lieut. Col. Victor Prudon, and Capt. D. Salvador Vallejo; having formed and published to the world no regular plan of government, we feel it our duty to say that it is not our intention to take or injure any person who is not found in opposition to the cause, nor will we take or destroy the property of private individuals further than is necessary for our immediate support.

"EZEKIEL MERRITT, WILLIAM FALLON,
"R. SEMPLE, SAMUEL KELSEY."

GEN. VALLEJO A PRISONER IN SUTTER'S FORT.

But to proceed with our narrative of the removal of the General, his brother and Prudon to Sutter's Fort. A guard consisting of William B. Ide, as Captain, Captain Grigsby, Captain Merritt, Kit Carson, William Hargrave, and five others left Sonoma for Sutter's Fort, with their prisoners upon horses actually supplied by General Vallejo himself. We are told that on the first night after leaving Sonoma with their prisoners, the revolutionists, with singular inconsistency, encamped and went to sleep without setting sentinel or guard; that during the night they were surrounded by a party under the command of Juan de Padilla, who crept up stealthily and awoke one of the prisoners, telling him that there was with him close at hand a strong and well-armed force of rancheros, who, if need be, could surprise and slay the Americans before there was time for them to fly to arms, but that he, Padilla, before giving such instructions waited the orders of General Vallejo, whose rank entitled him to the command of any such demonstration.

The General was cautiously aroused and the scheme divulged to him, but with a self-sacrifice which cannot be too highly commended, answered that he should go voluntarily with his guards, that he anticipated a speedy and satisfactory settlement of the whole matter, advised Padilla to return to his rancho and disperse his band, and positively refused to permit any violence to the guard, as he was convinced that such would lead to disastrous consequences, and probably involve the rancheros and their families in ruin, without accomplishing any good result.

Having traveled about two-thirds of the way from Sutter's Fort, Captain Merritt and Kit Carson rode on ahead with the news of the capture of Sonoma, desiring that arrangements be made for the reception of the prisoners. They entered the fort early in the morning of June 16th.

MAKING OF THE BEAR FLAG.

On the seizure of the citadel of Sonoma, the Independents found floating from the flag-staff-head the flag of Mexico, a fact which had escaped notice during the bustle of the morning. It was at once lowered, and they set to work to devise a banner which they should claim as their own. They were as one on the subject of there being a star on the groundwork, but they taxed their ingenuity to have some other device, for the "lone star" had already been appropriated by Texas.

So many accounts of the manufacture of this insignia have been published that we give the reader those quoted by the writer in *The Pioneer*:—

"A piece of cotton cloth," says Mr. Lancy, "was obtained, and a man by the name of Todd proceeded to paint from a pot of red paint a star in the corner. Before it was finished, Henry L. Ford, one of the party, proposed to paint on the center, facing the star, a grizzly bear. This was unanimously agreed to, and the grizzly bear was painted accordingly. When it was done the flag was taken to the flag-staff, and hoisted amid the hurrahs of the little party, who swore to defend it with their lives."

Of this matter Lieutenant Revere says: "A flag was also hoisted bearing a grizzly bear rampant, with one stripe below, and the words, 'Republic of California,' above the bear, and a single star in the union." This is the evidence of the officer who hauled down the Bear flag and replaced it with the Stars and Stripes on July 9, 1846.

The *Western Shore Gazetteer* has the following version: "On the 14th of June, 1846, this little handful of men proclaimed California a free and independent Republic. and on that day hoisted their flag, known as the 'Bear flag;' this consisted of a strip of worn-out cotton domestic, furnished by Mrs. Kelley, bordered with red flannel, furnished by Mrs. John Sears, who had fled from some distant part to Sonoma for safety upon hearing that war had been thus commenced. In the center of the flag was a representation of a bear, *en passant*, painted with Venetian red, and in one corner was painted a star of the same color. Under the bear were inscribed the words, 'Republic of California,' put on with common writing ink. This flag is preserved by the California Pioneer Association, and may be seen at their rooms in San Francisco. It was designed and executed by W. L. Todd."

The *Sonoma Democrat* under the caption, "A True History of the Bear Flag," tells its story: "The rest of the revolutionary party remained in possession of the town. Among them were three young men,—Todd, Benjamin Duell, and Thomas Cowie. A few days after the capture, in a casual conversation between these young men, the matter of a flag came up. They had no authority to raise the American flag, and they determined to make one. Their general idea was to imitate, without following too closely their national ensign. Mrs. W. B. Elliott had been brought to the town of Sonoma by her husband from his ranch on Mark West Creek for safety. The old Elliott cabin may be seen to this day on Mark West Creek, about a mile above the Springs. From Mrs. Elliott, Benjamin Duell got a piece of new red flannel, some white domestic, needles, and thread. A piece of blue drilling was also obtained.

So from this material, without consultation with any one else, these three young men made the Bear flag. Cowie had been a saddler. Duell had also served a short time at the same trade. To form the flag, Duell and Cowie sewed together alternate strips of red, white and blue. Todd drew in the upper corner a star, and painted on the lower a rude picture of a grizzly bear, which was not standing as has been sometimes represented, but was drawn with head down. The bear was afterwards adopted as the design of the great seal of the State of California On the original flag it was so rudely executed that two of those who saw it raised have told us that it looked more like a hog than a bear. Be that as it may, its meaning was plain—that the revolutionary party would, if necessary, fight their way through at all hazards. In the language of our informant, it meant that there was no back-out; they intended to fight it out. There were no halyards on the flag-staff, which stood in front of the barracks. It was again reared, and the flag, which was soon to be replaced by that of the Republic, for the first time floated on the breeze."

William Winter, Secretary of the Association of Territorial Pioneers of California, and Mr. Lancey, questioned the correctness of these dates, and entered into correspondence with all the men known to be alive, who were of that party, and others who were likely to throw any light on the subject. Among many answers received, we quote the following portion of a letter from James G. Bleak:—

"ST. GEORGE, Utah, 16th of April, 1878.

"*To William Winter, Esq., Secretary of Association 'Territorial Pioneers of California'*—

"DEAR SIR: Your communication of the 3d instant is placed in my hands by the widow of a departed friend—James M. Ide, son of William B.—as I have at present in my charge some of his papers. In reply to your question asking for 'the correct date' of raising the 'Bear flag' at Sonoma, in 1846 I will quote from the writing of William B. Ide, deceased:—

"'The said Bear flag (was) made of plane (plain) cotton cloth, and ornamented with the red flannel of a shirt from the back of one of the men, and christened by the 'California Republic,' in red paint letters on both sides; (it) was raised upon the standard where had floated on the breezes the Mexican flag aforetime; it was the 14th of June, '46. Our whole number was twenty-four, all told. The mechanism of the flag was performed by William L. Todd of Illinois. The grizzly bear was chosen as an emblem of strength and unyielding resistance.'

"JAMES G. BLEAK."

W. B. IDE'S REMARKABLE SPEECH.

The garrison being now in possession, it was necessary to elect officers; therefore, Henry L. Ford was elected First Lieutenant; Granville P. Swift, First Sergeant; and Samuel Gibson, Second Sergeant. Sentries were posted and a system of military routine inaugurated. In the forenoon, while on parade, Lieutenant Ford addressed the company in these words:—

"My countrymen! We have taken upon ourselves a very responsible duty. We have entered into a war with the Mexican nation. We are bound to defend each other or be shot! There's no half-way place about it. Each of you has had a voice in choosing your officers. Now they are chosen they must be obeyed!"

To which the entire band responded that the authority of the officers should be supported. For point and brevity this is almost equal to the speech put in the mouths of some of his military heroes by Tacitus, the great Roman historian.

CAPTAIN IDE ORGANIZES THE FORCES.

The words of William B. Ide throw further light upon the machinery of the civil-military force: "The men were divided into two companies of ten men each. The First Artillery were busily engaged in putting the cannons in order, which were doubly charged with grape and canister. The First Rifle Company were busied in cleaning, repairing and loading the small arms. The commander, after setting a guard and posting a sentinel on one of the highest buildings to watch the approach of any persons who might feel a curiosity to inspect our operations, directed his leisure to the establishment of some system of finance, whereby all the defenders' families might be brought within the lines of our garrison and supported. Ten thousand pounds of flour were purchased on the credit of the Government, and deposited with the garrison. And an account was opened, on terms agreed upon, for a supply of beef and a few barrels of salt which constituted our main supplies. Whisky was contrabanded altogether. After the first round of duties was performed, as many as could be spared off guard, were called together and our situation fully explained to the men by the commanders of the garrison.

Will S. Green says: "We have seen it stated by some writers, that Capt. John Grigsby was chosen to the command after the capture of Sonoma, and also that Ide was so chosen but both of them went with the prisoners to Sutter's Fort. We have talked with both Ide and Semple about the Bear Flag War, and we are certain that Ide was not the military commander, but that it was in a civil capacity that he issued the proclamation above given. Ford, although nominally a Lieutenant, was the real military leader of the Bear Flag Party. He had served four years as Sergeant in the U. S. Dragoons, and understood the drill and discipline better than those more able to direct the policy to be pursued. Ide and Semple were the leaders in that."

A messenger was dispatched to San Francisco to inform Captain Montgomery, of the United States ship *Portsmouth*, of the action taken by them, he further stating that it was the intention of the insurgents never to lay down their arms until the independence of their adopted country had been established.

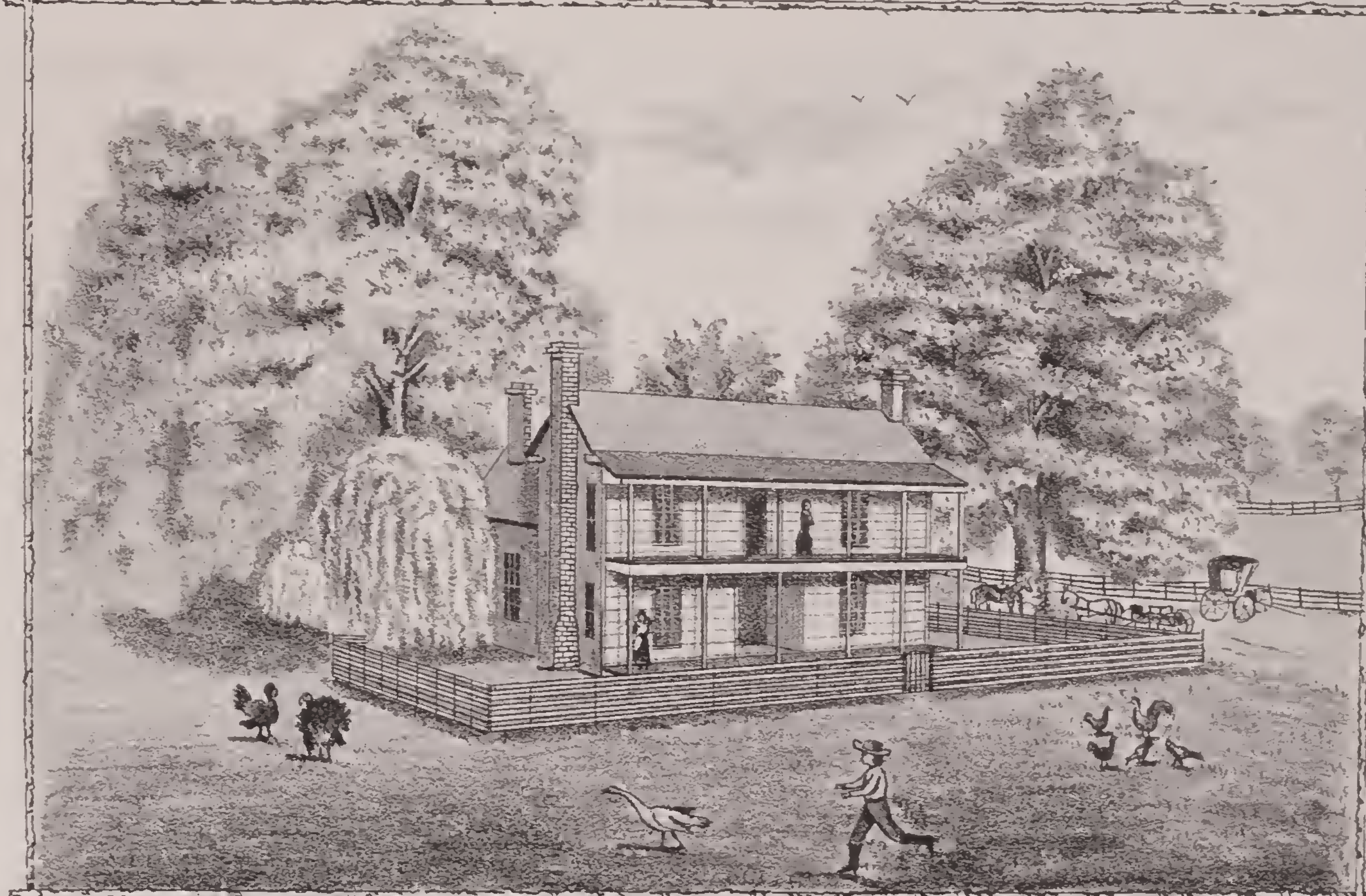
A TRAGIC AND FEARFUL DEATH.

Lieutenant Ford finding that the magazine was short of powder, sent two men, named Cowie and Fowler, to the Sotoyome Rancho, at Healdsburg, owned by H. D. Fitch, for a bag of rifle powder. Two miles from Santa Rosa, they were attacked and slaughtered by a party of Californians. Two others were dispatched on special duty; they, too, were captured, but were treated better. Receiving no intelligence from either of the parties, foul play was suspected; therefore on the morning of the 20th of June, Sergeant Gibson was ordered, with four men, to proceed to the Sotoyome Rancho, learn if possible, the whereabouts of the missing men, and procure the powder. They went as directed, secured the ammunition, but got no news of the missing men. As they were passing Santa Rosa, on their return, they were attacked at daylight by a few Californians, and turning upon their assailants, captured two of them, Blas Angelina and Barnadino Garcia, *alias* Three-fingered Jack, and took them to Sonoma. They told of the taking and slaying of Cowie and Fowler.

The story of their death is a sad one. After Cowie and Fowler had been seized by the Californians, they encamped for the night, and the following morning determined in council what should be the fate of their captives. A swarthy New Mexican named Mesa Juan Pedilla, and Three-fingered Jack, the Californian, were loudest in their denunciation of the prisoners as deserving of death; and, unhappily, their counsels prevailed. The unfortunate young men were then led out, stripped naked, bound to a tree with a lariat, while for a time, the inhuman monsters practiced knife-throwing at their naked bodies, the victims, the while, praying to be shot. They then commenced throwing stones at them, one of which broke the jaw of Fowler. The fiend, Three-fingered Jack, then advancing, thrust the end of his riata (a rawhide rope) through the mouth, cut an incision in the throat, and then made a tie, by which the jaw was dragged out. They next proceeded to kill them slowly with their knives. Cowie, who had fainted, had the flesh stripped from his arms and shoulders, and pieces of flesh were cut from their bodies and crammed into their mouths, they finally being disemboweled. Their mutilated remains were afterwards found and buried where they fell, upon the farm now owned by George Moore, two miles north of Santa Rosa.

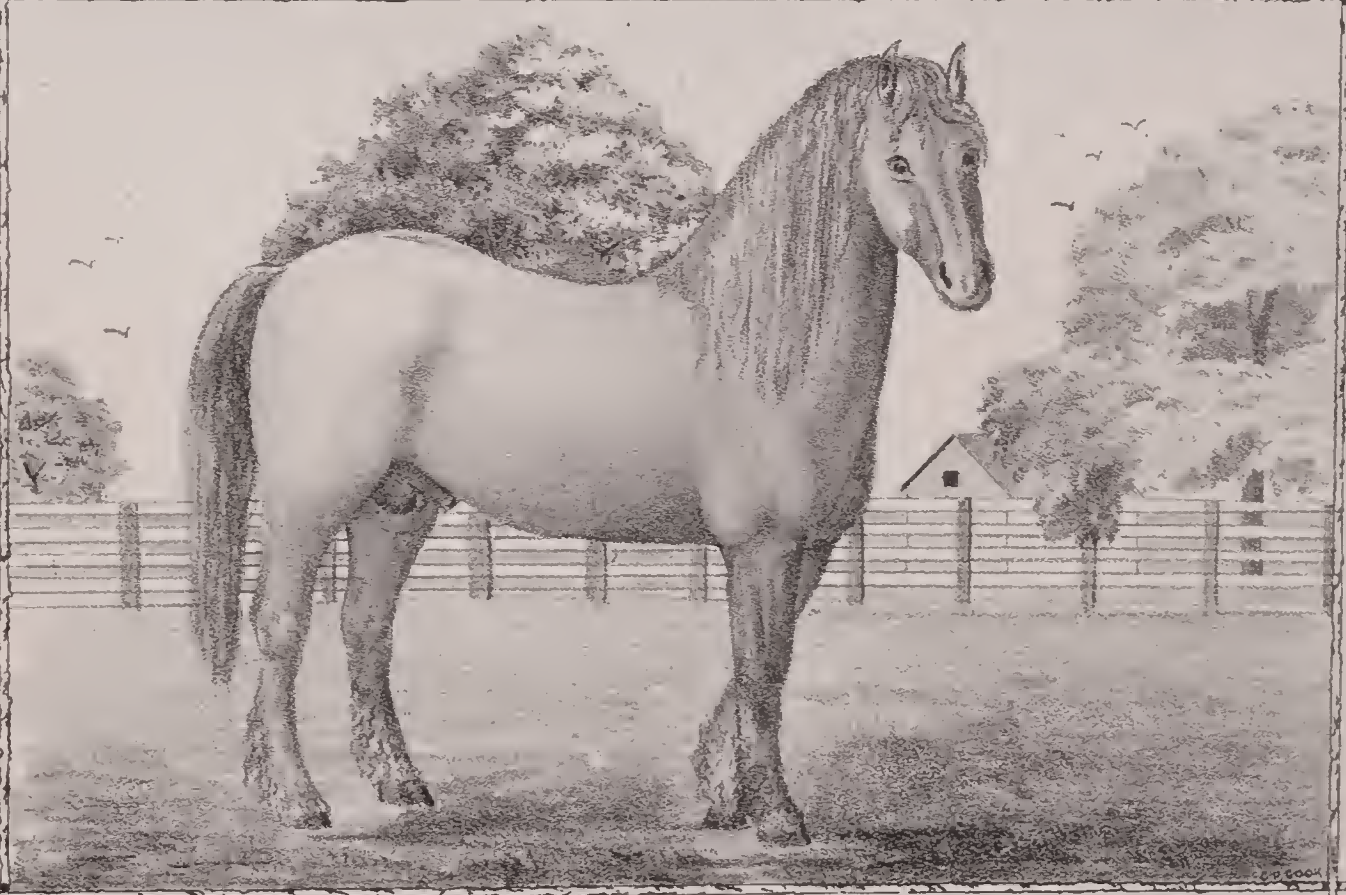
No stone marks the grave of these pioneers, one of whom took so conspicuous a part in the event which gave to the Union the great State of California.

Three-fingered Jack was killed by Captain Harry Love's Rangers, July 27, 1853, at Pinola Pass, near the Merced River,



RESIDENCE OF O.L.WILSON. NEAR KING'S RIVER. TULARE CO. CAL.

ELLIOTT LITH. 421 MONT. ST.



NORMAN STALLION, "**ENTERPRISE**." OWNED BY A. H. SANDERS. BREEDER OF NORMAN HORSES.

ELLIOTT LITH. 421 MONT. ST.

with the bandit Joaquin Murietta; while Ramon Carrillo met his death at the hands of the Vigilantes, between Los Angeles and San Diego, May 21, 1864.

W. B. IDE'S PROCLAMATON.

At Sonoma Capt. William B. Ide, with the consent of the garrison, issued the following:—

"*A Proclamation to all persons and citizens of the District of Sonoma, requesting them to remain at peace, and follow their rightful occupations without fear of molestation.*

"The commander-in-chief of the troops assembled at the fortress of Sonoma, gives his inviolable pledge to all persons in California, not found under arms, that they shall not be disturbed in their persons, their property, or social relations, one with another, by men under his command.

"He also solemnly declares his object to be: first, to defend himself and companions in arms, who were invited to this country by a promise of lands on which to settle themselves and families; who were also promised a republican goverement; when, having arrived in California, they were denied the privilege of buying or renting lands of their friends; who instead of being allowed to participate in, or being protected by a republican government, were oppressed by a military despotism; who were even threatened by proclamation, by the chief officers of the aforesaid despotism, with extermination, if they should not depart out of the country, leaving all their property, arms, and beasts of burden; and thus deprived of their means of flight or defense, were to be driven through deserts inhabited by hostile Indians, to certain destruction.

"To overthrow a government which has seized upon the property of the missions for its individual aggrandizement; which has ruined and shamefully oppressed the laboring people of California, by enormous exactions on goods imported into the country, is the determined purpose of the brave men who are associated under my command.

"I also solemnly declare my object, in the second place, to be to invite all peaceable and good citizens of California, who are friendly to the maintenance of good order and equal rights, and I do hereby invite them to repair to my camp at Sonoma, without delay, to assist us in establishing and perpetuating a republican government, which shall secure to all civil and religious liberty; which shall encourage virtue and literature; which shall leave unshackled by fetters agriculture, commerce, and manufactures.

"I further declare that I rely upon the rectitude of our intentions, the favor of heaven, and the bravery of those who are bound and associated with me by the principles of self-preservation, by the love of truth and the hatred of tyranny, for my hopes of success.

"I furthermore declare that I believe that a government to be prosperous and happy must originate with the people who are friendly to its existence; that the citizens are its guardians, the officers its servants, its glory its reward.

"William B. Ide.

"Headquarters, Sonoma, June 18, 1846."

JUDGE W. B. IDE'S HISTORY.

Capt. William B. Ide was born in Ohio; came overland, reaching Sutter's Fort in October, 1845. June 7, 1847, Governor Mason appointed him land surveyor for the northern district of California, and the same month he was appointed Justice of the Peace at Cache Creek. At an early day he got a grant of land which was called the Rancho Barranca Colorado, just below Red Creek, in Colusa County, as it was then organized. In 1851 he was elected County Treasurer, with an assessment roll of $373,206. Moved with the county seat to Monroeville, at the mouth of Stony Creek, September 3, 1851; was elected County Judge of Colusa County, and practiced law, having a license. Judge Ide died of small-pox at Monroeville, Colusa County, on Saturday, December 18, 1852, aged fifty years.

ANECDOTE OF JUDGE IDE.*

Ide was the presiding Judge and Deputy Clerk, and Huls was Associate Justice and Deputy Sheriff. The prisoner was brought into court by Huls, and the indictment read to him by Ide as Clerk. He was on trial for horse-stealing; the penalty at that time was death. The Judge mounted the bench and informed the prisoner of his rights, including that of having counsel assigned him for his defense. This the prisoner asked. Here was a dilemma. There was no licensed attorney, nearer than Butte County, to be had. The Court (Ide and two Associate Judges) held a consultation on the situation. Ide, however, was always equal to any emergency, and he suggested that he himself had been over at Hamilton a few days before attending Judge Sherwood's Court, and had been admitted as a practicing attorney, and he did not see why he should not defend the prisoner.

This was suggested to the defendant at the bar, who was delighted with the arrangement of being defended by the presiding Judge. There being no District Attorney present, it was expected that the presiding Judge would also look out for the interests of the people. With the Court thus organized, the trial began. Ide would question the witnesses, raise his points of law on either side, and then get on the bench to help decide them, take exceptions to his own ruling, and then as Clerk make the entries.

When the testimony was all in Ide addressed the jury, presenting first the side of the prosecution, and then of the defense, winding up with a plea for mercy. Then he got on the bench again, and instructed the jury calmly and impartially as to the law in the case. The jury retired, and in a few moments brought in a verdict of "guilty."

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*Written by Will S. Green, of the *Colusa Sun*, for Elliott's History of Colusa County.

When the time for sentence came, the Judge ordered the prisoner to stand up, and he addressed him in substance as follows: "You have had a fair and impartial trial by a jury of your peers. You have been ably defended by counsel appointed by this Court. The jury have found you guilty of grand larceny, the penalty of which, under the benign laws of this State, is death. It is, therefore, the judgment of this Court that you be taken by the Sheriff to some convenient place, on the — day of ——, and then and there hanged by the neck, until you are dead, dead, dead, and may the Lord have mercy on your soul."

Turning to Associate Huls, he ordered the Sheriff to take charge of the prisoner. A day or so before that set for the execution Huls went over after his prisoner, but found that he had been pardoned out by the Governor, without the officers of Colusa County knowing anything about it.

ONLY FIGHT UNDER THE BEAR FLAG.

1846.—The only real fight of the war occurred on the twenty-fifth of June, between a body of about eighty Californians and some twenty men under command of Lieutenant Ford. These few men were put to flight, and continued their march across the bay. Fremont arrived at Sonoma two days after the fight, still hesitating,. He wanted, so we are told by Semple and Ide, (who informed Will S. Green, of Colusa,) to occupy a position where he might reap the benefit of a victory and not suffer from defeat.

After the return of the Californians across the bay, the Bear Flag Party urged Fremont to capture the ship *Moscow,* then lying at Saucelito, cross the bay, capture Castro, and by one bold stroke end the war. Captain Phelp, of the *Moscow,* was in full sympathy with the movement, and even went so far as to put a lot of provisions on a launch near enough to them to be captured by the party of revolutionists.

Com. John D. Sloat took possession of Monterey, and three days afterwards the Bear Flag Party heard of it, and the Stars and Stripes took the place of the Bear at Sonoma.

AMERICAN FLAG RAISED IN MONTEREY.

On Saturday, July 11, 1846, came the astounding news from Monterey that Commodore Sloat had arrived there in the United States frigate *Savannah,* and had raised the United States flag, and had taken possession of the country in consequence of war, which had broken out between the United States and Mexico. It was understood that Commodore Sloat requested Captain Fremont to go with all possible dispatch to Monterey.

The United States flag was raised in Monterey on July 7th. If the messenger started immediately, he was four days on his way to Fremont's camp. But Fremont appears to have been nine days on the way to Monterey, reaching there on Sunday, July 19th. If the question is asked, why this slowness, when speed would be so certainly looked for, the reply must be that no answer is apparent.

CAPTURE OF MONTEREY.*

"Concerning the capture of Monterey," says Will S. Green, "we were fortunate enough to hear the recital by Commodore Sloat himself. War was anticipated between the United States and Mexico long before it occurred, and Commodore Jones, then in command on this coast, was instructed to take Monterey, the capital of California, as soon as he heard hostilities had commenced. As we have seen, he acted too hurriedly, and, on the instance of the American Minister, he was removed. Sloat, who succeeded, had the same instructions, and was lying at Mazatlan with a frigate and sloop-of-war anxiously watching the signs of the times. It was known that there was an arrangement with England to take possession of California, and hold it for Mexico in case of war. Admiral Seymour, of the British navy, with the line-o'-battle ship *Collingwood,* was also at Mazatlan waiting orders. One day Seymour got dispatches, and Sloat got none. Sloat set a watch on the Admiral's movements, and found him in close consultation with the leading Mexicans, who avoided the American commander. He guessed that hostility had commenced, and when Seymour went on board his vessel and began to make ready for departure, he felt certain of the fact; and the white sails of the *Collingwood* had not disappeared in the distance before the two small American vessels were under way for Monterey. Every possible inch of canvas was spread and a quick voyage was made. On arriving at Monterey a demand was made for the surrender of the place, which was complied with without the firing of a gun. In a day or so the lookout announced the approach of the *Collingwood.* Not knowing how the Admiral would interpret his order to take possession of Monterey, the Commodore had his two small vessels got in readiness for action. The huge Englishman sailed up between the two American vessels and dropped anchor. Sloat sent an officer on board with his compliments to the Admiral, and the latter came in person to see the Commodore. He told Sloat that he knew that he had received no official information of the existence of war, and added that no officer in the British navy would have taken the responsibility he had done. He then asked Sloat, in a sort of bantering way, what he would have done if he had come into port and found the British flag flying. "I would have had you sink these two little ships for me," was the Commodore's reply. It was thus owing to the prompt action and courage of Commodore Sloat that we became possessed of California.

WHERE FIRST AMERICAN FLAG WAS RAISED.

"The soil of San Benito County claims the honor of having sustained the first American flag of conquest ever unfurled to a California 'breeze,' General Fremont having floated the United States flag on the Gabilan Peak in March, 1846."

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*More fully given in the local "History of Colusa County," by Elliott & Co.

Judge James F. Breen, one of the survivors of the Donner party, in preparing a history for us of San Benito County, says: "This statement has been often challenged as not being a historical fact. But I believe a careful examination of the facts connected with the conquest and possession of California by the United States will justify the above assertion."

General Fremont had been ordered out of the country by General Castro. Matters began to look serious, and Captain Fremont concluded to retire, at his leisure, however, but to leave nothing undone to make an available defense if attacked. He accordingly abandoned the Mission of San Juan, and led his company, with their horses, provisions, and such munitions of war as he had, up the steep acclivities leading to the Gabilan, or Fremont's Peak, as it is often and more appropriately called, which overlooks the towns of Hollister and San Juan. He there camped, erected a flag-staff and unfurled the Stars and Stripes, and calmly awaited the attack. But the attack was not delivered.

The spot where Captain Fremont halted his company, and raised the flag, is on the San Benito side of the division line between Monterey and San Benito Counties; and the prominent peak which rises just above the spot is to-day better known as Fremont's Peak than as the Gabilan Peak, as it was called by the Californians. And so it is that San Benito County claims, with justice, that her soil supported the first American flag of conquest that was ever unfurled to a California breeze. It is to be borne in mind that Commodore Sloat did not raise the American flag over Monterey until July 10, 1846; and that the famous "Bear Flag," which was American in sentiment if not in design, was not raised by Ide at Sonoma until June of the same year.

WAR DECLARED AGAINST MEXICO.

In the meantime Congress had (unknown to these parties) declared war against Mexico, and an expedition 1,600 strong, under Gen. Stephen W. Kearney, was traversing the continent in the direction of the Pacific. Simultaneously with Fremont's action in the north, Commodore Sloat seized upon Monterey; and his successor—Commodore Stockton—prepared at once for the reduction of the then principal city of Los Angeles.

CAPTURE OF LOS ANGELES.

With this end in view he organized a battalion of mounted riflemen, of which Fremont was appointed Major, and Gillespie Captain. This force was embarked on the sloop-of-war *Cyane*, and dispatched to San Diego with orders to co-operate with the Commodore in his proposed movement on the *Ciudad de Los Angeles*. On August 1st Stockton sailed in the *Congress*, and on the sixth arrived at San Pedro, having taken possession of Santa Barbara on his way. He now learned that the enemy under Generals Castro and Andres Pico were strongly posted near Los Angeles with a force estimated at 1,500 men. He learned further that Major Fremont had landed at San Diego, but was unable to procure horses, and therefore could not join him. In the absence of Fremont's battalion, Stockton was wholly destitute of cavalry; yet, impressed with the importance of celerity of movement, he disembarked his men. The force consisted only of from 300 to 400 marines, wholly ignorant of military drill; and their only artillery—six small guns, rudely mounted and dragged by hand.

A few days after landing, a flag of truce approached over the hills, borne by commissioners from Castro. Desiring to impress these with an exaggerated idea of the strength of his force, Stockton directed his little army to march at intervals of twenty or thirty paces apart, to a position where they would be sheltered from observation. In this manner the commissioners were completely deceived, and when on their arrival they were marched up to the mouth of an immense mortar, shrouded in skins save its huge aperture, their terror and discomfiture were plainly discernible.

Stockton received them with a stern and forbidding countenance, harshly demanding their mission, which they disclosed in great confusion. They bore a letter from Castro proposing a truce: each party to hold its own possessions until a general pacification should be had. This proposal Stockton rejected with contempt, and dismissed the commissioners with the assurance that only an immediate disbandment of his forces and an unconditional surrender, would shield Castro.

CALIFORNIA DECLARED A U. S. TERRITORY.

After some skirmishing of the two forces Castro surrendered, and the soldiers were permitted to go at large on their parole of honor—not again to bear arms against the United States. Commodore Stockton now issued a proclamation declaring California a territory of the United States; and, as all resistance had ceased, proceeded to organize a civil and military government, himself retaining the position of Commander-in-chief and Governor.

About this time Stockton first learned that war had been declared between the United States and Mexico; and leaving fifty men under command of Lieut. A. H. Gillespie to garrison Los Angeles, he proceeded north, to look after affairs in that quarter. Thus the whole great territory of Upper California had been subjected to American rule without bloodshed *or even the firing of a gun*.

TREATY OF PEACE SIGNED.

The treaty of peace between the United States and Mexico was signed at Guadalupe Hidalgo, February 2, 1848; ratifications were exchanged at Queretaro, May 30th, following. Under this treaty the United States assumed the Mexican debt to American subjects, and paid into the Mexican Treasury

$15,000,000 in money, receiving in exchange Texas, New Mexico, and Upper California, and the right of free navigation on the Colorado River and the Gulf of California.

FIRST AMERICAN GOVERNOR.

1846.—Sloat proclaimed himself Governor of California, and acted as such until the 17th of August, 1846, when he was superseded by Com. R. F. Stockton, who commenced at once a vigorous campaign against the Mexicans under Flores, whom he defeated January 8 and 9, 1847. In January, 1847, Stockton appointed Fremont Governor, but this of right belonged to Gen. S. W. Kearney, who, on March 1st, assumed that office. He was succeeded by Colonel Mason in May, and on the 15th of April, 1849, Gen. Bennett Riley was appointed Governor, and continued in office until he was succeeded by Peter H. Burnett, under the State Constitution.

CALIFORNIA IN TRANSITION.

The year 1846 was the crisis-year in the destiny of California. In looking back on the events of that year, touching this country, from this distance of time, their main purpose stands out clearly revealed, as it did not when those events were transpiring. It is plain enough now, that they were inspired from Washington.

The Government of the United States had kept a careful watch of what was going on on this coast for many years. Ever after the famous explorations of Lewis and Clarke, who were sent out by President Jefferson, in 1804, our Government had kept itself thoroughly informed of everything that concerned California.

The hopes of England to acquire California were also well known, and all her movements having that end in view, were carefully observed.

Meanwhile the Government at Washington continued to seek all possible information concerning this country, then so remote and unexplored. Thomas O. Larkin, who came here from Massachusetts in 1832, seems to have had a fancy and a tact for gathering up facts and statistics. These he freely communicated to the Government.

By this means, as well as in other ways, they were made acquainted, not only with the geography and natural resources of the country, but with its inhabitants, both the native born and the foreign.

THE DONNER PARTY.

The following incidents were furnished us by Superior Judge Breen, of Hollister, one of the survivors of the party:—

There are many stories of human trial and suffering whose deep interest no amount of repetition can render stale, and such a story is the record of the ill-fated party of immigrants which furnished the actors in the terrible tragedy of Donner Lake. Portions of the tale have been written by many hands. They have differed widely, and many have been plainly colored for effect.

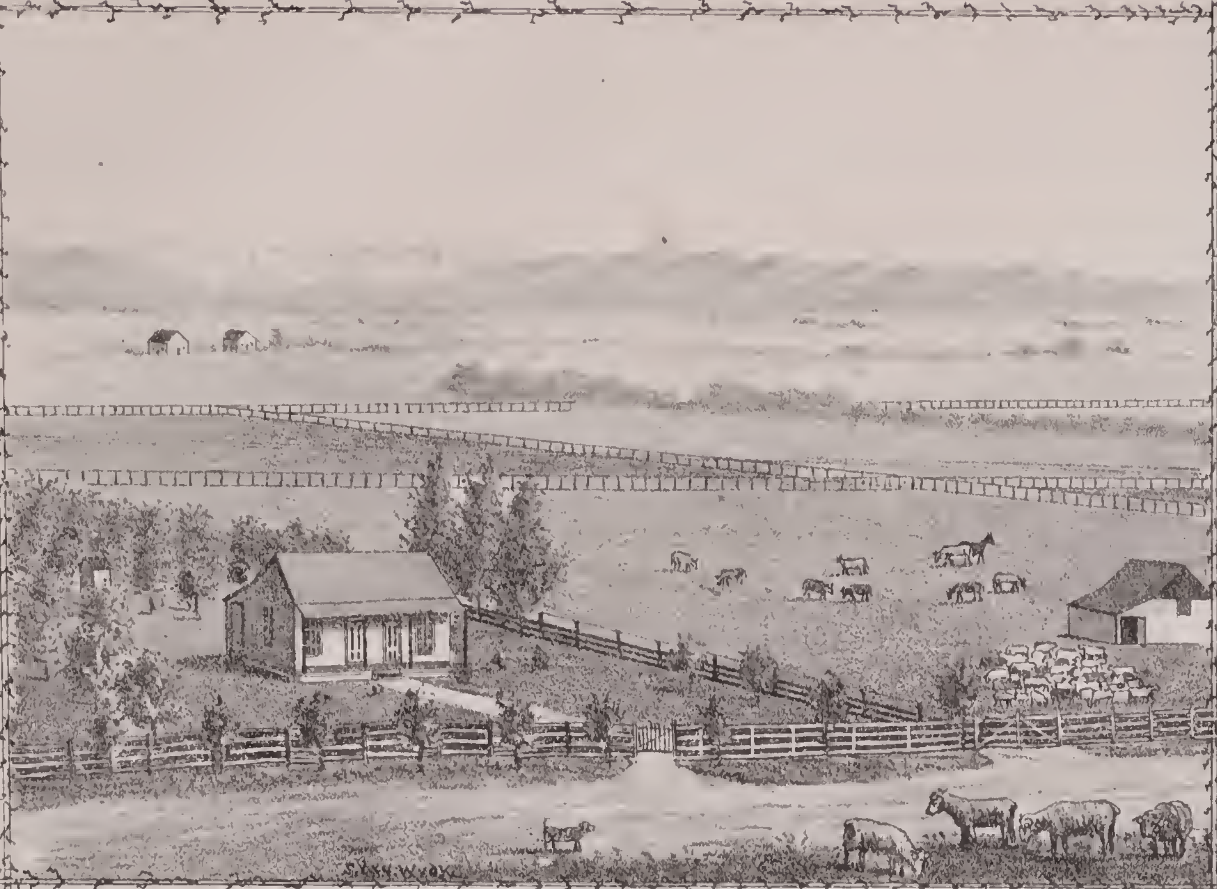
The story of the Donner party, in its general features, is too well known on this coast to need repetition. Too many suffered the hardships of crossing the plains to allow the recollections of those days to die out. For years after the great rush of immigration in '49 no story was told more frequently or was listened to with more eager interest than the misfortunes of that party.

The Donner party proper was formed in Sangamon County, Illinois,and was composed of ninety persons. Numerous additions were made to the train on its way, and when it left Independence, Missouri, it numbered between 200 and 300 wagons, and was over two miles in length. The journey to Salt Lake was made without any noticeable incidents, save the extreme slowness of the march. At Fort Bridger the woes of the Donner party began. Eighty-seven persons—the survivors of the original ninety—determined to go by way of the Hastings Cut-off, instead of following the old trail. The remainder of the train clung to the old route, and reached California in safety. The cut-off was by way of Weber Cañon and was said to rejoin the old emigrant road on the Humboldt, making a saving of 300 miles. It proved to be in a wretched condition, and the record of the party from this time was one long series of disasters. Their oxen became exhausted—they were forced to make frequent halts; the stock of provisions ran low. Finally, in the Salt Lake Desert, the emigrants saw plainly that they would never reach the Pacific Coast without assistance. Two of their number were despatched with letters to Captain Sutter imploring aid.

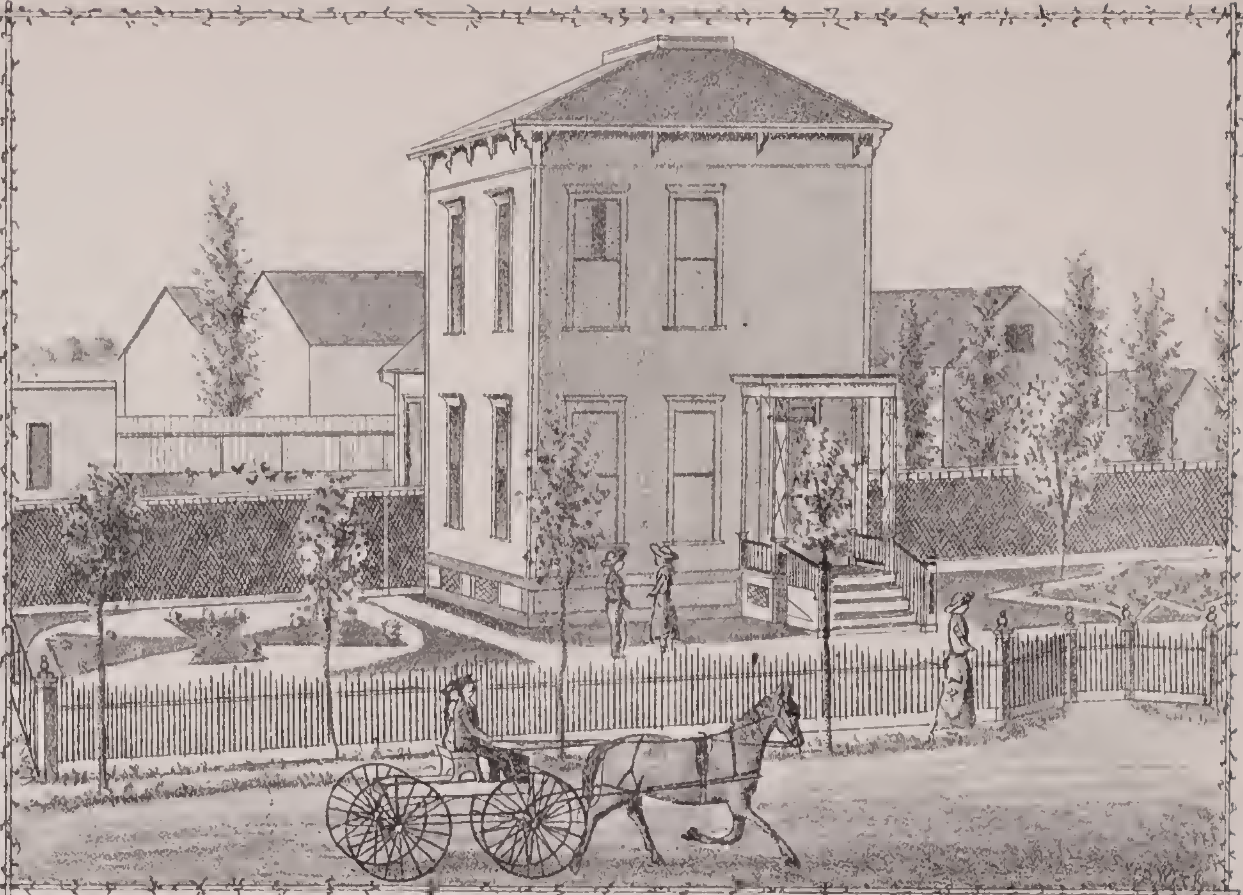
THE FATAL REST.

At the present site of Reno, the party concluded to rest. Three or four days' time was lost. This was the fatal act, The storm-clouds were already brewing upon the mountains. only a few miles distant. The ascent was ominous. Thick and thicker grew the clouds, outstripping in threatening battalions the now eager feet of the alarmed emigrants, until at Prosser Creek, three miles below Truckee, October 28, 1846, a month earlier than usual, the storm set in, and they found themselves in six inches of newly-fallen snow. On the summit it was already from two to five feet deep.

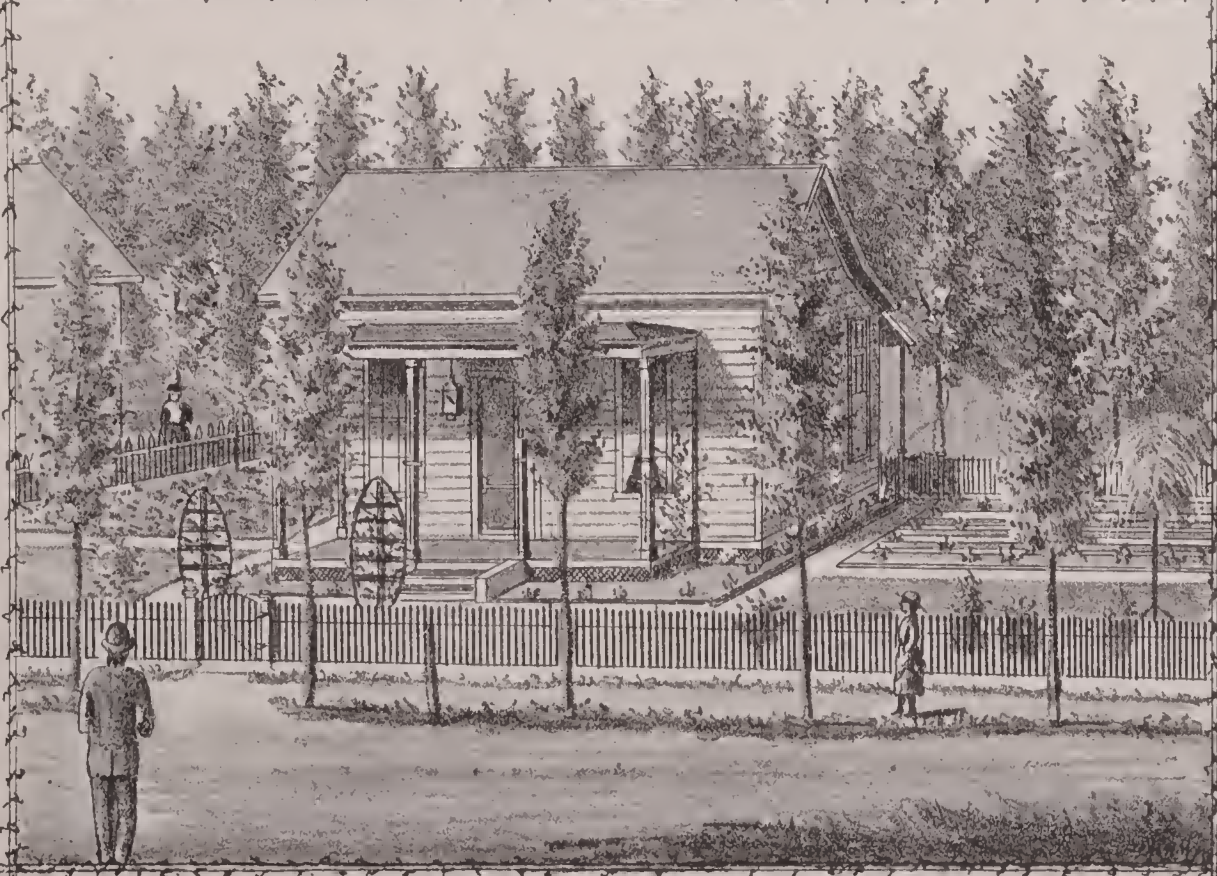
The party, in much confusion, finally reached Donner Lake in disordered fragments. Frequent and desperate attempts were made to cross the mountain tops, but at last, baffled and despairing, they returned to camp at the lake. The storm now descended in all its pitiless fury upon the ill-fated immigrants. Its dreadful import was well understood, as laden with omens of suffering and death. With slight interruptions, the storm continued for several days. The animals were literally buried alive and frozen in the drifts. Meat was hastily prepared from their carcasses, and cabins rudely built. One cabin (Moses Schallenberger's, now a resident of San Jose), erected November, 1844, was already standing about a quarter of a mile below the lake. This the Breen family appropriated. Judge Breen, now of San Juan, gives his reminiscences of the



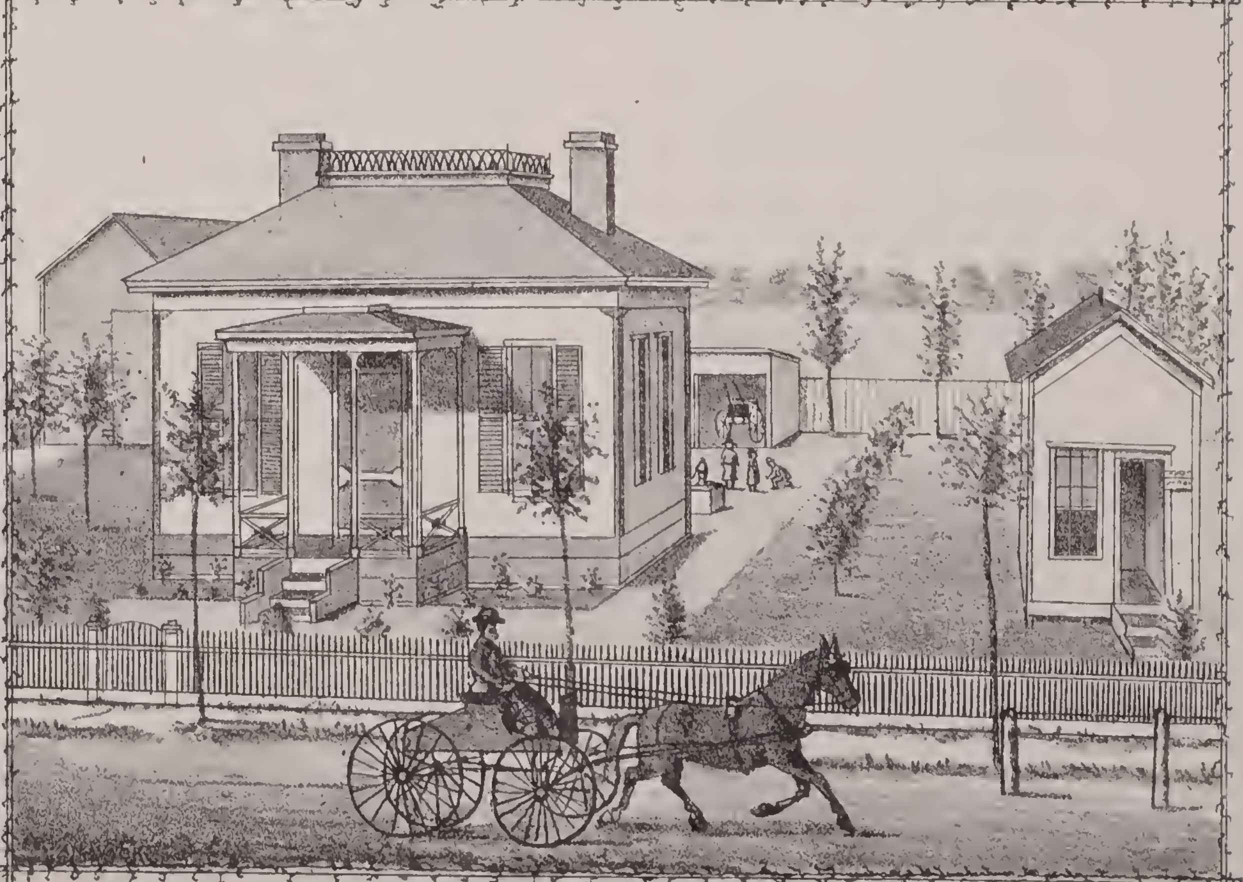
RESIDENCE OF FRANK RODGERS. GRANGEVILLE, CAL.



RESIDENCE OF GEO. THYARKS. HANFORD. CAL.



HOME RESIDENCE OF R. L. PORTER MICKLE. HANFORD. CAL.



HOME RESIDENCE DR. J. A. DAVIDSON. HANFORD. CAL.

Donner party in our history of San Benito County. The Murphys erected one 300 yards from the lake, marked by a large stone twelve feet high. The Graves family built theirs near Donner Creek, farther down the stream, the three forming the apexes of a triangle, and distant 150 yards or more.

The Donner Brothers, with their families, hastily constructed a brush shed in Alder Creek Valley, six or seven miles from the lake.

The Mr. Donner who had charge of one company, was an Illinoisian, sixty years of age, a man of high respectability and abundant means. His wife was a woman of education and refinement, and much younger than he.

Of course these were soon utterly destitute of food, for they could not tell where the cattle were buried, and there was no hope of game on a desert so piled with snow that nothing without wings could move. The number of those who were thus storm-stayed, at the very threshold of the land whose winters are one long spring, was eighty, of whom thirty were females, and several, children. Much of the time the tops of the cabins were below the snow level.

FORLORN HOPE RESCUE PARTY.

It was six weeks after the halt was made that a party of fifteen, including five women and two Indians, who acted as guides, set out on show-shoes to cross the mountains, and give notice to the people of the California settlements of the condition of their friends. At first the snow was so light and feathery that even in snow-shoes they sank nearly a foot at every step. On the second day they crossed the "divide," finding the snow at the summit twelve feet deep. Pushing forward with the courage of despair, they made from four to eight miles a day.

Within a week they got entirely out of provisions; and three of them, succumbing to cold, weariness, and starvation, had died. Then a heavy snow-storm came on, which compelled them to lie still, buried between their blankets under the snow, for thirty-six hours. By the evening of the tenth day three more had died, and the living had been four days without food. The horrid alternative was accepted—they took the flesh from the bones of their dead, remained in camp two days to dry it, and then pushed on.

On New Year's, the sixteenth day since leaving Truckee Lake, they were toiling up a steep mountain. Their feet were frozen. Every step was marked with blood. On the second of January, their food again gave out. On the 3d, they had nothing to eat but the strings of their snow-shoes. On the 4th, the Indians eloped, justly suspicious that they might be sacrificed for food. On the 5th, they shot a deer, and that day one of their number died. Soon after three others died, and every death now eked out the existence of the survivors. On the 17th, all gave out, and concluded their wanderings useless, except one. He, guided by two friendly Indians, dragged himself on till he reached Johnson's Ranch on Bear River, the first settlement on the western slope of the Sierras, when relief was sent back as soon as possible, and the remaining six survivors were brought in next day. It had been thirty-two days since they left Donner Lake. No tongue can tell, no pen portray, the awful suffering, the terrible and appalling straits, as well as the noble deeds of heroism that characterized this march of death. The eternal mountains, whose granite faces bore witness to their sufferings, are fit monuments to mark the last resting-place of this heroic party.

SEVERAL RELIEF PARTIES FITTED OUT.

The story that there were immigrants perishing on the other side of the snowy barrier, ran swiftly down the Sacramento Valley to New Helvetia, and Captain Sutter, at his own expense, fitted out an expedition of men and of mules ladened with provisions, to cross the mountains and relieve them. It ran on to San Francisco, and the people rallying in public meeting, raised $1,500, and with it fitted out another expedition. The naval commandant of the port fitted out still others.

First of the relief parties, under Capt. J. P. Tucker, reached Truckee Lake on the 19th of February. Ten of the people in the nearest camp were dead. For four weeks those who were still alive had fed only on bullocks' hides. At Donner's camp they had but one hide remaining. The visitors left a small supply of provisions with the twenty-nine whom they could not take with them and started back with the remainder. Four of the children they carried on their backs.

Second of the relief parties, under J. F. Reed, reached Truckee Lake on the 1st of March. They immediately started back with seventeen of the sufferers; but, a heavy snow-storm overtaking them, they left all, except three of the children, on the road.

The third party, under John Stark, went after those who were left on the way; found three of them dead, and the rest sustaining life by feeding on the flesh of the dead.

THE LAST SURVIVOR.

Last relief party reached Donner's camp late in April, when the snows had melted so that the earth appeared in spots. The main cabin was empty, but some miles distant they found the last survivor of all lying on the cabin floor smoking his pipe. "He was ferocious in aspect, savage and repulsive in manner. His camp-kettle was over the fire and in it his meal of human flesh preparing. The stripped bones of his fellow-sufferers lay around him. He refused to return with the party, and only consented when he saw there was no escape."

This person was Louis Keseberg, who has been execrated as a cannibal, and whose motive in remaining behind has been ascribed to plunder. Never until now has he made any attempt to refute these stories. He says:—

"For nearly two months I was alone in that dismal cab

* * * Five of my companions had died in my cabin, and their stark and ghastly bodies lay there day and night, seemingly gazing at me with their glazed and staring eyes. I was too weak to move them had I tried. I endured a thousand deaths. To have one's suffering prolonged inch by inch; to be deserted, forsaken, hopeless; to see that loathsome food ever before my eyes was almost too much for human endurance."

For two months he lived there entirely alone, boiling the flesh of his dead companions. When the last relief party came they found him the sole survivor.

If he were guilty of the crimes charged to him he has certainly paid the penalty. To use his own words: "Wherever I have gone people have cried, 'Stone him! stone him!' Even little children in the streets have mocked me and thrown stones at me as I passed. Only a man conscious of his own innocence would not have succumbed to the terrible things which have been said of me—would not have committed suicide. Mortification, disgrace, disaster, and unheard-of misfortune have followed and overwhelmed me."

Keseberg has lost several fortunes, and is now living in poverty at Brighton, Sacramento County, with two idiotic children.

FATE OF DONNER AND WIFE.

When the third relief party arrived at Donner Lake, the sole survivors at Alder Creek were George Donner, the Captain of the company, and his heroic wife, whose devotion to her dying husband caused her own death during the last and fearful days of waiting for the fourth relief. George Donner knew that he was dying, and urged his wife to save her life and go with her little ones with the third relief, but she refused. Nothing was more heart-rending than her sad parting with her beloved little ones, who wound their childish arms lovingly around her neck, and besought her with mingled tears and kisses to join them. But duty prevailed over affection, and she retraced the weary distance to die with him whom she had promised to love and honor to the end.

Mrs. Donner was the last to die. Her husband's body, carefully laid out and wrapped in a sheet, was found in his tent. Circumstances led to the suspicion that the survivor (Keseberg) had killed Mrs. Donner for her flesh and her money; and when "he was threatened with hanging, and the rope tightened around his neck, he produced over five hundred dollars in gold, which probably he had appropriated from her store."

STRANGE AND EVENTFUL DREAM.

George Yount was the pioneer settler of Napa County. He, in the winter of 1846, dreamed that a party of immigrants were snow-bound in the Sierra Nevadas, high up in the mountains, where they were suffering the most distressing privations from cold and want of food. The locality where his dream had placed these unhappy mortals, he had never visited, yet so clear was his vision that he described the sheet of water surrounded by lofty peaks, deep-covered with snow, while on every hand towering pine trees reared their heads far above the limitless waste. In his sleep he saw the hungry human beings ravenously tear the flesh from the bones of their fellow-creatures, slain to satisfy their craving appetites, in the midst of a gloomy desolation. He dreamed his dream on three successive nights, after which he related it to others, among whom were a few who had been on hunting expeditions to the Sierras. These wished for a precise description of the scene foreshadowed to him. They recognized the Truckee, now the Donner Lake. On the strength of this recognition, Mr. Yount fitted out a search expedition, and with these men as guides, went to the place indicated; and prodigious to relate, was one of the successful relieving parties to reach the ill-fated Donner Party.

Of the eighty-seven persons who reached Donner Lake, only forty-eight escaped. Of these twenty-six are known to be living in this State and in Oregon.

SCENE OF THE DISASTER.

The best description of the scene of the disaster was given by Edwin Bryant, who accompanied General Kearney's expedition in 1847 to bury the remains. He says: "Near the principal cabins, I saw two bodies entire, with the exception that the abdomens had been cut open and the entrails extracted. The flesh had been either wasted by famine or evaporated by exposure to the dry atmosphere, and they presented the appearance of mummies. Strewn around the cabins were dislocated and broken skulls (in some instances sawed asunder with care for the purpose of extracting the brains), human skeletons, in short, in every variety of mutilation. A more revolting and appalling spectacle I never witnessed. The cabins were burned, the bodies buried, and now there is nothing to mark the place save the tall stumps, from ten to twenty feet in height, which surround some of the rocks on the lake's shore."

TRIALS OF THE PIONEERS.

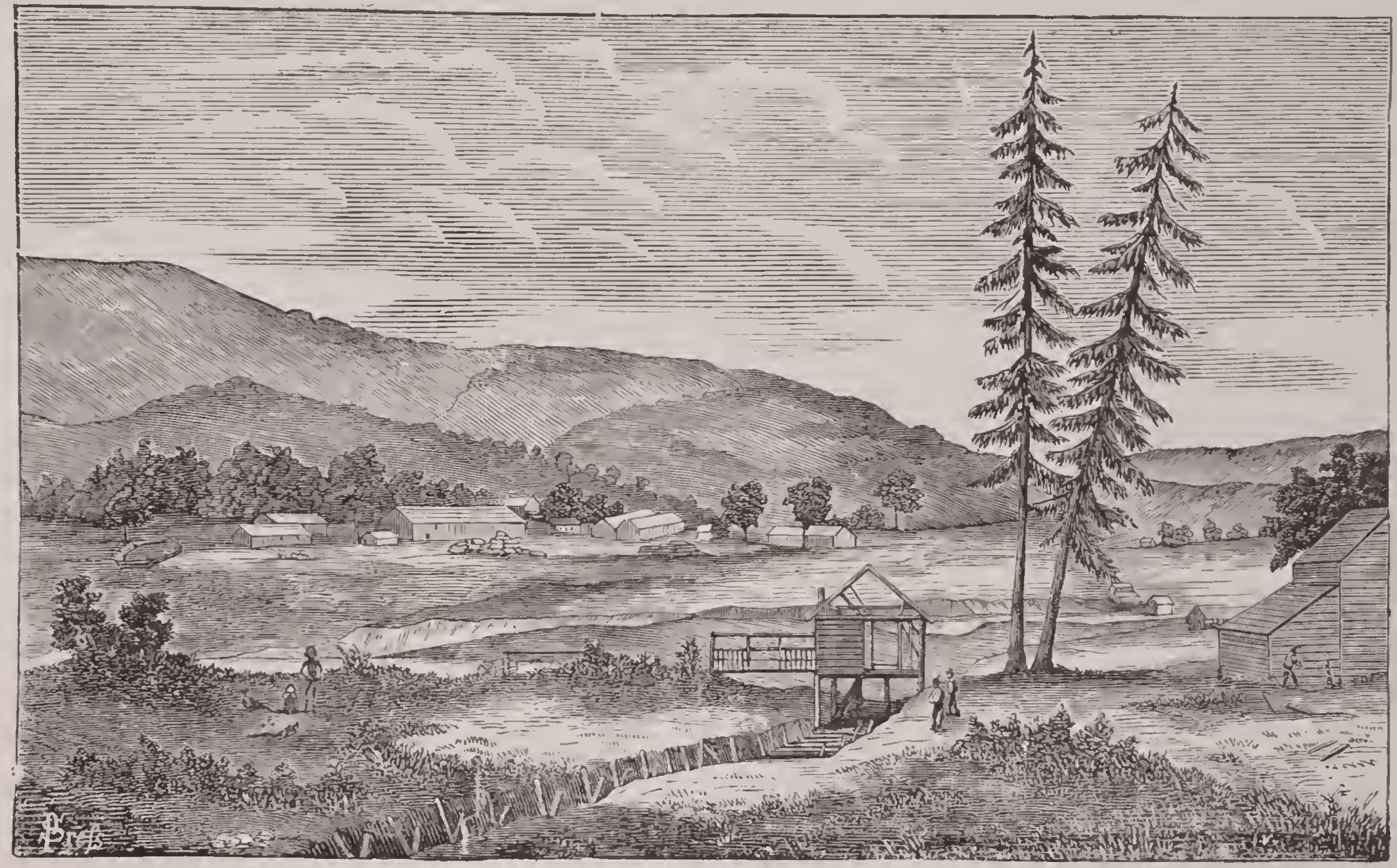
It was in the few years prior to the discovery of gold that the genuine pioneers of California braved the unknown dangers of the plains and mountains, with the intention of settling in the fair valley, of which so much was said and so little known, and building a home for themselves and their children. Many of these immigrants crossed the mountains by nearly the same route pursued by the Central Pacific Railroad, except that they followed down Bear River to the plains.

The first settlement reached by them was that of Theodore Sicard, at Johnson's Crossing, on the Placer County side, and a few miles below Camp Far West. This settlement was made in 1844, and was the first point reached by the members of the ill-starred Donner Party in 1847. Opposite Sicard's settlement was Johnson's ranch, owned by William Johnson and Sebastian Kyser, who settled there in 1845. Johnson's Crossing was for years a favorite landmark and rallying point.

The Discovery of Gold.

No HISTORY of the State, or of a county in California would be complete without a record of the rush to this coast at the time of what is so aptly termed the "gold fever."

The finding of gold at Coloma by Marshall was not the real discovery of the precious metal in the territory. But the time and circumstances connected with it, together with the existing state of affairs, caused the rapid dissemination of the news. People were ready and eager for some new excitement, and this proved to be the means of satisfying the desire. From all parts of California, the coast of the United States, and in fact the world, poured in vast hordes of gold-seekers. The precious metal had been found in many places.



Sutter's Mill, Where Gold was Discovered.

DR. SANDELS' SEARCH FOR GOLD.

1843.—In the summer of 1843, there came to this coast from England, a very learned gentleman named Dr. Sandels. He was a Swede by birth. Soon after his arrival on this coast, the Doctor visited Captain Sutter. The Captain always thought there must be mineral in the country, and requested Dr. Sandels to go out into the mountains and find him a gold mine; the Doctor discouraged him by relating his experience in Mexico, and the uncertainty of mining operations, as far as his knowledge extended, in Mexico, Brazil, and other parts of South America. He advised Sutter never to think of having anything to do with the mines; that the best mine was the soil, which was inexhaustible. However, at Sutter's solicitation, Dr. Sandels went up through his grant to Hock Farm, and thence to the Butte Mountains up the Sacramento Valley, as far as the location of Chico.

While passing over the black adobe land lying between the Butte Mountains and Butte Creek, which resembled the gold wash in Brazil, Dr. Sandels remarked: "Judging from the Butte Mountains, I believe that there is gold in this country, but I do not think there will ever be enough to pay for the working." Dr. Sandels was hurried, as the vessel upon which he was to take passage was soon to sail, and he could not spare the time to pursue his search to any more definite end.

GEN. BIDWELL KNEW OF GOLD.

1844.—When General Bidwell was in charge of Hock Farm, in the month of March or April, 1844, a Mexican by the name of Pablo Gutteirez was with him, having immediate supervision of the Indian vaqueros, taking care of the stock on the plains, "breaking" wild horses, and performing other duties common to a California rancho. This Mexican had some knowledge of gold mining in Mexico, where he had lived, and after returning from the mountains on Bear River at the time mentioned, he informed General Bidwell that there was gold up there.

As heretofore mentioned, Dr. Marsh describes gold and silver mines as early as 1842.

SUTTER'S SAW-MILL CONSTRUCTED.

1847.—Captain Sutter always had an unconquerable desire for the possession of a saw-mill, by which he could himself furnish the necessary material for the construction of more improved buildings than the facilities of the country could at that time afford. Around his fort in 1847, was a person named James W.

Marshall, who had a natural taste for mechanical contrivances, and was able to construct, with the few crude tools and appliances at hand, almost any kind of a machine ordinarily desired. It was to this man that Sutter intrusted the erection of the long-contemplated and much needed saw-mill. The contract was written by Mr. John Bidwell, then Captain Sutter's Secretary, and signed by the parties. Marshall started out in November, 1847, equipped with tools and provisions for his men. He reported the distance of the selected site to be thirty miles, but he occupied two weeks in reaching his destination in Coloma. In the course of the winter a dam and race were made, but when the water was let on, the tail-race was too narrow. To widen and deepen it, Marshall let in a strong current of water directly to the race, which bore a large body of mud and gravel to the foot.

MARSHALL'S DISCOVERY OF GOLD.

1848.—On the 19th of January, 1848, Marshall observed some glittering particles in the race, which he was curious enough to examine. He called five carpenters on the mill to see them; but though they talked over the possibility of its being gold, the vision did not inflame them.

One lump weighed about seventeen grains. It was malleable, heavier than silver, and in all respects resembled gold. About 4 o'clock in the evening Marshall exhibited his find to the circle composing the mill company laborers. Their names were James W. Marshall, P. L. Wimmer, Mrs. A. Wimmer, J. Barger, Ira Willis, Sydney Willis, A. Stephens, James Brown, Ezekiah F. Persons, H. Bigler, Israel Smith, William Johnson, George Evans, C. Bennett, and William Scott. The conference resulted in a rejection of the idea that it was gold. Mrs. Wimmer tested it by boiling it in strong lye. Marshall afterwards tested it with nitric acid. It was gold, sure enough, and the discoverer found its like in all the surrounding gulches wherever he dug for it. The secret could not be kept long. It was known at Yerba Buena three months after the discovery.

TWO IMPORTANT EVENTS.

1848.—The treaty of Guadalupe Hidalgo, by which California was ceded to the United States, was concluded in Mexico, on February 2, 1848. It proves to have been on that very day, the 2d of February, 1848, that here in California, Marshall rides in from Sutter's Mill, situated at what is now Coloma, forty miles to Sutter's Fort, his horse in a foam and himself all bespattered with mud; and finding Captain Sutter alone, takes from his pocket a pouch, from which he pours upon the table about an ounce of yellow grains of metal, which he thought would prove to be gold. It did prove to be gold, and there was a great deal more where that came from. General Bidwell writes: "I myself first took the news to San Francisco. I went by way of Sonoma. I told General Vallejo. He told me to say to Sutter 'that he hoped the gold would flow into his purse as the water through his mill-race.'"

WHAT MIGHT HAVE BEEN.

We cannot observe the coincidence of the date of this great discovery, with that of the negotiation of the treaty of peace with Mexico, by which California was acquired by the United States, without thinking. What if the gold discovery had come first? What if the events of the war had postponed the conclusion of peace for a few months? What if Mexico had heard the news before agreeing upon terms? What if Mexico's large creditor, England, had also learned that there was abundance of gold here in California? Who can tell, when in that case, there would have been peace, and upon what terms, and with what disposition of territory.

THE DISOVERY OF GOLD DOUBTED.

In the bar room at Weber's Hotel in San Jose, one day in February, 1848, a man came in, and to pay for something he had purchased, offered some gold-dust, saying that gold had been discovered at Sutter's Mill on American River, and all were going to work. The people were very incredulous and would not believe the story. An old Georgia miner said that what the man had was really gold, and requested him to investigate the matter. When he arrived at Sutter's Mill, he asked Sutter regarding it, and the Captain assured him that it was a certainty, and that a man could make five dollars a day. He carried the news to San Jose and the place was almost deserted, every one hastening to the mines.

The people were suspicious regarding the quality and amount of the gold. As the weeks passed, confidence was gained and the belief that there might possibly be precious minerals in other localities was strengthened.

Prospectors gradually pushed out beyond the narrow limits of the first mining district, and thus commenced the opening up of the vast mining fields of California and the Pacific Coast.

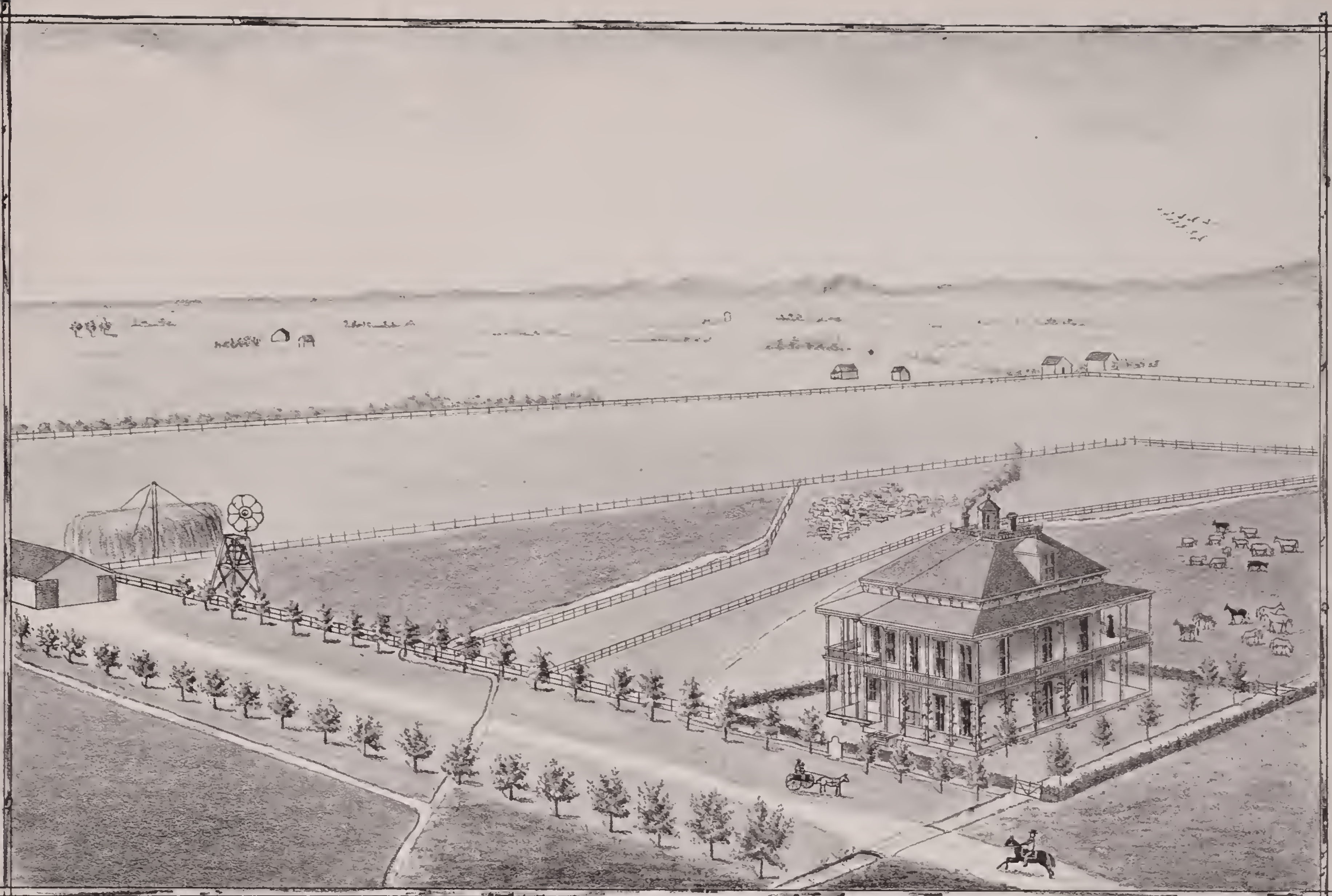
SPECIMEN PIECES OF GOLD.

A Frenchman fishing in a prospect hole for frogs for his breakfast, at Mokelumne Hill, in November, 1848, discovered a speck of gold on the side of the excavation, which he dug out with his pocket-knife and sold for $2,150.

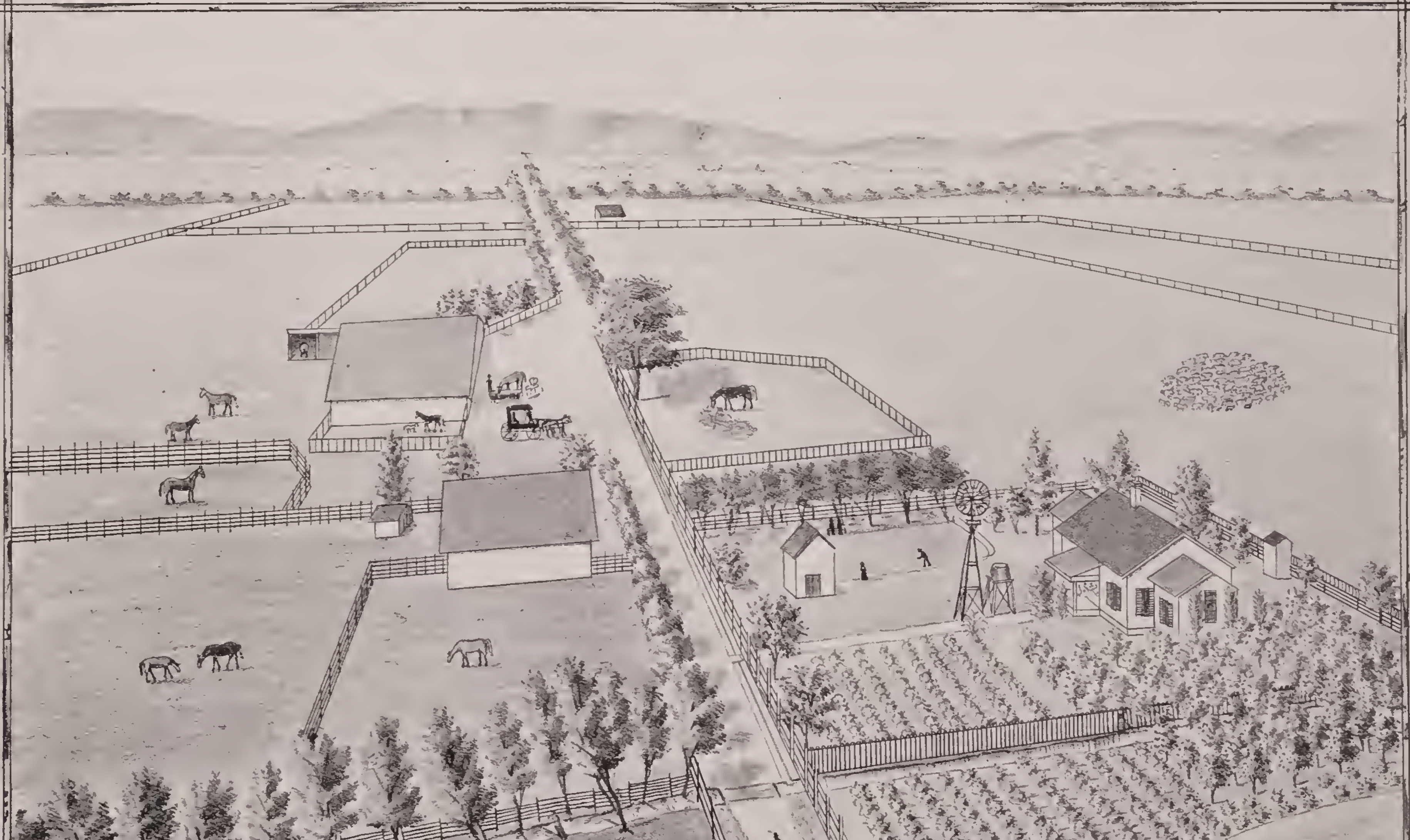
Three sailors who had deserted took out $10,000 in five days on Weber Creek. Such strokes of good fortune turned all classes into miners, including the lawyers, doctors and preachers.

The exports of gold-dust in exchange for produce and merchandise amounted to $500,000 by the 25th of September. The ruling price of gold-dust was $15 per ounce, though its intrinsic value was from $19 to $20.

The first piece of gold found in California weighed 50 cents, and the second $5. Since that time one nugget worth $43,000, two $21,000, one $10,000, two $8,000, one $6,500, four $5,000, twelve worth from $2,000 to $4,000, and eighteen from $1,000 to $2,000 have been found and recorded in the History of the



PART OF RANCH & RESIDENCE OF W & J. ROBINSON, HANFORD, TULARE CO. CAL.



RANCH & RESIDENCE OF E. GIDDINGS. 5 MILES W. S. W. FROM HANFORD, TULARE CO. CAL.

State. In addition to the above, numberless nuggets worth from $100 to $500 are mentioned in the annals of California gold mining during the last thirty years. The first two referred to were exchanged for bread, and all trace of them was lost. The finder of one of the $8,000 pieces became insane the following day, and was confined in the hospital at Stockton.

MERCHANTS REFUSE GOLD-DUST.

A meeting of citizens in San Francisco, presided over by T. M. Leavenworth and addressed by Samuel Brannan, passed resolutions in September, 1848, not to patronize merchants who refused to take gold-dust at $16 per ounce. A memorial was also sent from San Francisco to Congress in that month for a branch mint here. It stated, among other things, the opinion that by July 1, 1849, $5,000,000 worth of dust at $16 per ounce would be taken out of the mines. The figures were millions too low.

ADVANCE IN REAL ESTATE.

Real estate in San Francisco took a sudden rise. A lot on Montgomery Street near Washington, sold in July for $10,000, and was resold in November with a shanty on it for $27,000. Lots in Sacramento, or New Helvetia, also came up to fabulous prices that winter. By the month of October the rush from Oregon caused the Oregon City papers to stop publication. In December, the Kanakas and Sonorians came in swarms. A Honolulu letter, November 11th, said:—

"Such another excitement as the news from California created here the world never saw. I think not less than 500 persons will leave before January 1st, and if the news continues good, the whole foreign population except missionaries will go."

The news did continue good, and they came, some missionaries included. Soon there came up from the mines complaint of outrage and lawlessness, mostly against Kanakas and other foreigners. How well they were founded, to what they led, and how they were suddenly and summarily silenced, is a story that covers a very interesting part of the history of California and the progress of civilization in America.

On the 29th of May, the *Californian* issued a slip stating that its further publication, for the present, would cease, because nearly all its patrons had gone to the mines.

SAN FRANCISCO DESERTED.

A month later there were but five persons—women and children—left in Yerba Buena. The first rush was for Sutter's Mill, since christened Coloma, or Culluma, after a tribe of Indians who lived in that region. From there they scattered in all directions. A large stream of them went over to Weber Creek, that empties into the American some ten or twelve miles below Coloma. Others went up or down the river. Some, more adventurous, crossed the ridge over to the north and middle forks of the American.

By the close of June the discoveries had extended to all the forks of the American, Weber Creek, Hangtown Creek, the Cosumnes (known then as the Makosume), the Mokelumne, Tuolumne, the Yuba (from *uvas,* or *yuvas*—grape), called in 1848 the "Yuba," or "Ajuba," and Feather River.

On July 15th, the editor of the *Californian* returned and issued the first number of his paper after its suspension. It contained a description of the mines from personal observation. He said:—

"The country from the Ajuba (Yuba) to the San Joaquin, a distance of about 120 miles, and from the base toward the summit of the mountains, as far as Snow Hill [meaning Nevada], about seventy miles, has been explored and gold found on every part. There are now probably 3,000 people, including Indians, engaged in collecting gold. The amount collected by each man ranges from $10 to $350 per day. The publisher of this paper collected, with the aid of a shovel, pick, and a tin pan, from $44 to $128 per day—averaging $100. The gross amount collected may exceed $600,000; of which amount our merchants have received about $250,000, all for goods, and in eight weeks. The largest piece known to be found weighs eight pounds.

NUMBER OF MINERS AND THEIR SUCCESS.

1848.—On the 14th of August, the number of white miners was estimated at 4,000. Many of them were of Stevenson's Regiment and the disbanded Mormon Battalion. The *Californian* remarked on that day that "when a man with his pan or basket does not average $30 to $40 a day, he moves to another place.

Four thousand ounces a day was the estimated production of the mines five months after the secret leaked out. In April the price of flour here was $4 per hundred. In August it had risen to $16. All other subsistence supplies rose in the same proportion. Here is a part of a letter from Sonoma, to the *Californian*, August 14th:—

"I have heard from one of our citizens who has been at the placers only a few weeks, and collected $1,500, still averaging $100 a day. Another, who shut up his hotel here some five or six weeks since, has returned with $2,200, collected with a spade, pick, and Indian basket. A man and his wife and boy collected $500 in one day."

Sam Brannan laid exclusive claim to Mormon Island, in the American, about twenty-eight miles above its mouth, and levied a royalty of thirty per cent. on all the gold taken there by the Mormons, who paid it for awhile, but refused after they came to a better understanding of the rules of the mines. By September the news had spread to Oregon and the southern coast and on the 2d of that month the *Californian* notes that 125 persons had arrived in town "by ship" since August, 26th. In the "Dry Diggings" near Auburn, during the month of August, one man got $16,000 out of five cart-loads of dirt

In the same diggings a good many were collecting from $800 to $1,500 a day.

In the fall of 1848, John Murphy, now of San Jose, discovered Murphy's Camp Diggings in Calaveras, and some soldiers of Stevenson's Regiment discovered Rich Gulch at Mokelumne Hill. That winter one miner at Murphy's realized $80,000. It was common report that John Murphy, who mined a number of Indians on wages, had collected over $1,500,000 in gold-dust before the close of the wet season of 1848.

The following notice of the discovery is from the *Californian*, of San Francisco, on the 19th of April, 1848:—

> New Gold Mine.—It is stated that a new gold mine has been discovered on the American Fork of the Sacramento, supposed to be [it was not] on the land of William A. Leidesdorff, Esq., of this place. A specimen of the gold has been exhibited and is represented to be very pure.

May opened with accounts of new discoveries. The *Californian* of May 3d said: "Seven men, with picks and spades, gathered $1,600 worth in fifteen days." That was a little more than $15 per man per day. On the 17th of May the same paper said:—

> "Many persons have already left the coast for the diggings. Considerable excitement exists here. Merchants and mechanics are closing doors. Lawyers and alcades are leaving their desks, farmers are neglecting their crops, and whole families are forsaking their homes, for the diggings."

By May 24th gold-dust had become an article of merchandise, the price being from $14 to $16 per ounce. The *Californian* of that date had these advertisements:—

> GOLD! GOLD!! GOLD!!!—Cash will be paid for California gold by R. R. Buckalew, Watchmaker and Jeweler, San Francisco.
>
> GOLD! GOLD!! GOLD!!!—Messrs. Dickson & Hay are purchasers of Sacramento gold. A liberal price given. Bee Hive.

THE SECRET WOULD NOT KEEP.

Before Sutter had quite satisfied himself that the metal found was gold, he went up to the mill, and, with Marshall, made a treaty with the Indians, buying of them their titles to the region round about for a certain amount of goods. There was an effort made to keep the secret inside the little circle that knew it, but it soon leaked out. They had many misgivings and much discussion whether they were not making themselves ridiculous; yet by common consent all began to hunt, though with no great spirit, for the "yellow stuff" that might prove such a prize.

Slowly and surely, however, did these discoveries creep into the minds of those at home and abroad; the whole civilized world was set agog with the startling news from the shores of the Pacific. Young and old were seized with the California fever; high and low, rich and poor, were infected by it; the prospect was altogether too gorgeous to contemplate. Why, they could actually pick up a fortune for the seeking!

GRAND RUSH FOR THE GOLD.

While the real argonauts of 1848 were wandering around among the hills and gulches that flank the western slope of the Sierra Nevada, armed with pan, spoon, and butcher-knife, testing the scope and capabilities of the gold mines, the news of discovery was speeding on its way to the Eastern States, by two routes simultaneously.

It reached the frontier of Missouri and Iowa by the Mormon scouts and moving trappers about the same time that vessels sailing round Cape Horn took it to New York and Boston, which was in the late autumn of 1848. The first reports repeatedly confirmed and enlarged upon, threw the whole country into the wildest excitement. In the city of New York and the extreme Western States the fever was hottest.

EMIGRANT COMPANIES FORMED.

1849.—The adventurers generally formed companies, expecting to go overland or by sea to the mines, and to dissolve partnership only after a first trial of luck together in the "diggings." In the Eastern and Middle States they would often buy up an old whaling ship, just ready to be condemned to the wreckers, put in a cargo of such stuff as they must need themselves, and provisions, tools, or goods, that must be sure to bring returns enough to make the venture profitable. Of course, the whole fleet rushing together through the Golden Gate, made most of these ventures profitless, even when the guess was happy as to the kind of supplies needed by the Californians. It can hardly be believed what sieves of ships started, and how many of them actually made the voyage.

Hundreds of farms were mortgaged to buy tickets for the land of gold. Some insured their lives and pledged their policies for an outfit. The wild boy was packed off hopefully. The black sheep of the flock was dismissed with a blessing, and the folorn hope that, with a change of skies, there might be a change of manners. The stay of the happy household said "Good-bye, but only for a year or two," to his charge. Unhappy husbands availed themselves cheerfully of this cheap and reputable method of divorce, trusting time to mend matters in their absence. Here was a chance to begin life anew.

THE MINERS' LAWS.

The miners found no governmental machinery competent to protect their lives or their property, and hence each mining camp made a law unto itself. The punishment, of course, was sure and swift, and, as a consequence, there was but little of it. Gold was left in deep cañons with no one to watch it, and every opportunity was afforded for theft; but if there were any disposed to take what did not belong to them, the knowledge that their lives would pay the forfeit if detected, deterred them from it. The excitement of the times led to gambling. It seemed that almost everybody, even those who had been leading church members at the East, were seized with the mania for gambling. Tables for this purpose were set out in every hotel, and one corner of many of the stores, both in mines and cities, were set apart for the monte table.

SAN FRANCISCO ON SUNDAY.

Sunday in the time of the mining excitement differed little from other days. Banks were open; expresses were running; stores were open for the most part; auctioneers were crying their wares, and the town was full of business and noise. Gambling saloons were thronged day and night. The plaza was surrounded with them on two sides, and partly on a third. Music of every sort was heard from them, sometimes of the finest kind, and now and then the noise of violence and the sound of pistol shots. The whole city was a strange and almost bewildering scene to a stranger.

THE GOLDEN ERA OF 1849.

"The 'fall of '49 and the spring of '50' is the era of California history, which the pioneer always speaks of with warmth. It was the free-and-easy age when everybody was flush, and fortune, if not in the palm, was only just beyond the grasp of all. Men lived chiefly in tents, or in cabins scarcely more durable, and behaved themselves like a generation of bachelors. The family was beyond the mountains; the restraints of society had not yet arrived. Men threw off the masks they had lived behind and appeared out in their true character. A few did not discharge the consciences and convictions they brought with them. More rollicked in a perfect freedom from those bonds which good men cheerfully assume in settled society for the good of the greater number. Some afterwards resumed their temperate, steady habits, but hosts were wrecked before the period of their license expired.

"Very rarely did men on their arrival in the country, begin to work at their old trade or profession. To the mines first. If fortune favored, they soon quit for more congenial employment. If she frowned, they might depart disgusted, if they were able; but oftener, from sheer inability to leave the business, they kept on, drifting from bar to bar, living fast, reckless, improvident, half-civilized lives; comparatively rich to-day, poor to-morrow; tormented with rheumatisms and agues, remembering dimly the joys of the old homestead; nearly weaned from the friends at home, who, because they were never heard from, soon became like dead men in their memory; seeing little of women and nothing of churches; self-reliant, yet satisfied that there was nowhere any 'show' for them; full of enterprise in the direct line of their business, and utterly lost in the threshold of any other; genial companions, morbidly craving after newspapers; good fellows, but short-lived."

A REVIEW OF EVENTS.

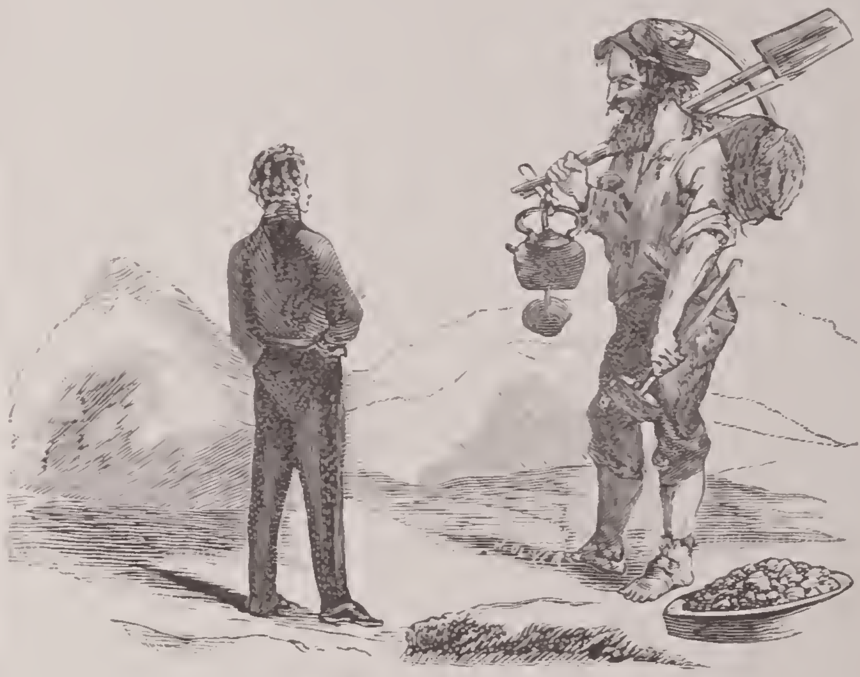
At this day it seems strange that the news of this great discovery did not fly abroad more swiftly than it did. It would not seem so very strange, however, if it could be remembered how very improbable the truth of the gold stories then were.

And it appeared to be most improbable, that if gold was really found, it would be in quantities sufficient to pay for going after it. People were a little slow to commit themselves, at first, respecting it. Even as late as May 24, 1848, a correspondent writing in the *Californian*, a paper then published in San Francisco, expressed the opinion of some people thus:—

"What evil effects may not result from this mania, and the consequent abandonment of all useful pursuits, in a wild-goose chase after gold?"

A good many people, far and near, looked upon the matter in this light for some time. The slowness with which the news traveled in the beginning, is seen in this:—

Monterey, then the seat of government, is not more than four or five days' travel from the place where gold was first discovered. The discovery took place not later than the 1st of February, 1848. And yet Alcalde Walter Colton says, in his journal under date, May 29th, "Our town was startled out of its quiet dreams to-day by the announcement that gold had been discovered on the American Fork."



Alcalde Colton Meets the Miner. (See next page.)

If it took four months for the news of the discovery of gold to travel as far as Monterey, the capital town of the country, it is not surprising that it hardly got over to the Atlantic States within the year 1848. There was then an express that advertised to take letters through to Independence, Missouri, in sixty days, at fifty cents apiece.

If the gold news had been thoroughly credited here, it might have been published all through the East by the first of May; but it was not. In the early fall of 1848, however, the rumor began to get abroad there, through private sources. At first it was laughed at, and those who credited it at all had no idea that gold existed here in sufficient quantities to be worth digging.

ALCALDE COLTON'S VISIT TO THE MINES.

Walter Colton, the alcalde of Monterey, and writer of "Three Years in California," hearing of the discovery of gold, visited the mines. From his descriptions we gain an insight into those days. We copy his journal for a few days:—

"1848 October 12.—We are camped in the center of the gold mines, in the heart of the richest deposits, where many hundreds are at work. All the gold-diggers were excited by the report that a solid pocket of gold had been found on the Stanislaus. In half an hour a motley crowd, with crow-bars, pick-axes, spades, and wash-bowls went over the hills in the direction of the new deposit. I remained and picked out from a small crevice of slate rock, a piece weighing a half-ounce.

"October 13.—I started for the Stanislaus diggings. It was an uproarous life; the monte-table, with its piles of gold, glimmering in the shade. The keeper of the bank was a woman. The bank consisted of a pile of gold, weighing, perhaps, a hundred pounds. They seemed to play for the excitement, caring little whether they won or lost.

"It was in this ravine that, a few weeks since, the largest lump of gold found in California was discovered. Its weight was twenty-three (23) pounds, and in nearly a pure state. Its discovery shook the whole mines. (Query—Does any one know the name of the finder ?)

"October 14.—A new deposit was discovered this morning near the falls of the Stanislaus. An Irishman had gone there to bathe, and in throwing off his clothes, had dropped his knife, which slipped into a crevice, and in getting it, picked up gold-dust. He was soon tracked out, and a storm of picks were splitting the rocks.

PRICES OF PROVISIONS.

"October 15.—Quite a sensation was produced by the arrival from Stockton of a load of provisions and whisky. The price of the former was: flour, $2 per pound; sugar and coffee, $4. The whisky was $20 per quart. Coffee-pots and sauce-pans were in demand, while one fellow offered $10 to let him suck with a straw from the bung. All were soon in every variety of inebriety.

"October 16.—I encountered to-day, in a ravine some three miles distant, among the gold washers, a woman from San Jose. She was at work with a large wooden bowl, by the side of a stream. I asked her how long she had been there, and how much gold she averaged per day. She replied: "Three weeks, and an ounce."

"October 18.—A German, this morning, picking a hole in the ground near our camping tree, struck a piece of gold weighing about three ounces. As soon as it was known, some forty picks were flying into the earth, but not another piece was found. In a ravine, a little girl this morning picked up what she thought a curious stone, and brought it to her mother, who found it a lump of gold, weighing six or seven pounds.

"October 20.—I encountered this morning, in the person of a Welshman, a marked specimen of the gold-digger. He stood some six feet eight in his shoes, with giant limbs and frame. A slender strap fastened his coarse trowsers above his hips, and confined the flowing bunt of his flannel shirt. A broad-rimmed hat sheltered his browny features, while his unshorn beard and hair flowed in tangled confusion to his waist. To his back was lashed a blanket and bag of provisions; on one shoulder rested a huge crow-bar, to which was hung a gold washer and skillet; on the other rested a rifle, a spade, and a pick, from which dangled a cup and a pair of heavy shoes. He recognized me as the magistrate who had once arrested him for breach of the peace. "Well, Alcalde," said he, "I am glad to see you in these diggings. I was on a buster; you did your duty, and I respect you for it; and now let me settle the difference between us with a bit of gold; it shall be the first I strike under this bog." Before I could reply, his traps were on the ground, and his pick was tearing up bog after bog. These removed, he struck a layer of clay. "Here she comes," he ejaculated, and turned out a piece of gold that would weigh an ounce or more. "There Alcalde, accept that, and when you reach home have a bracelet made for your good lady." He continued digging around the same place for the hour I remained, but never found another piece—not a particle. No uncommon thing to find only one piece, and never another near it."

THE DESERTED CLAIMS.

Seattered all up and down through the mining districts of California are hundreds of such spots as that represented by Colton. Time was when the same place was full of life and activity; when the flume ran; when the cabins were tenanted; when the loud voices of men rose, and the sounds of labor kept the birds away that now fly so fearlessly around the tumbling ruins. But the claim gave out, and the miners, gathering their tools together, vamosed for some other spot, and desolation set in. The unused flume dropped to pieces, ownerless huts became forlorn, and the *debris* only added to the dismalness of the place. Or who knows, some dark deed may have led to the abandonment of the claim, for surely the spot looks uncanny and gloomy enough for twenty murders.

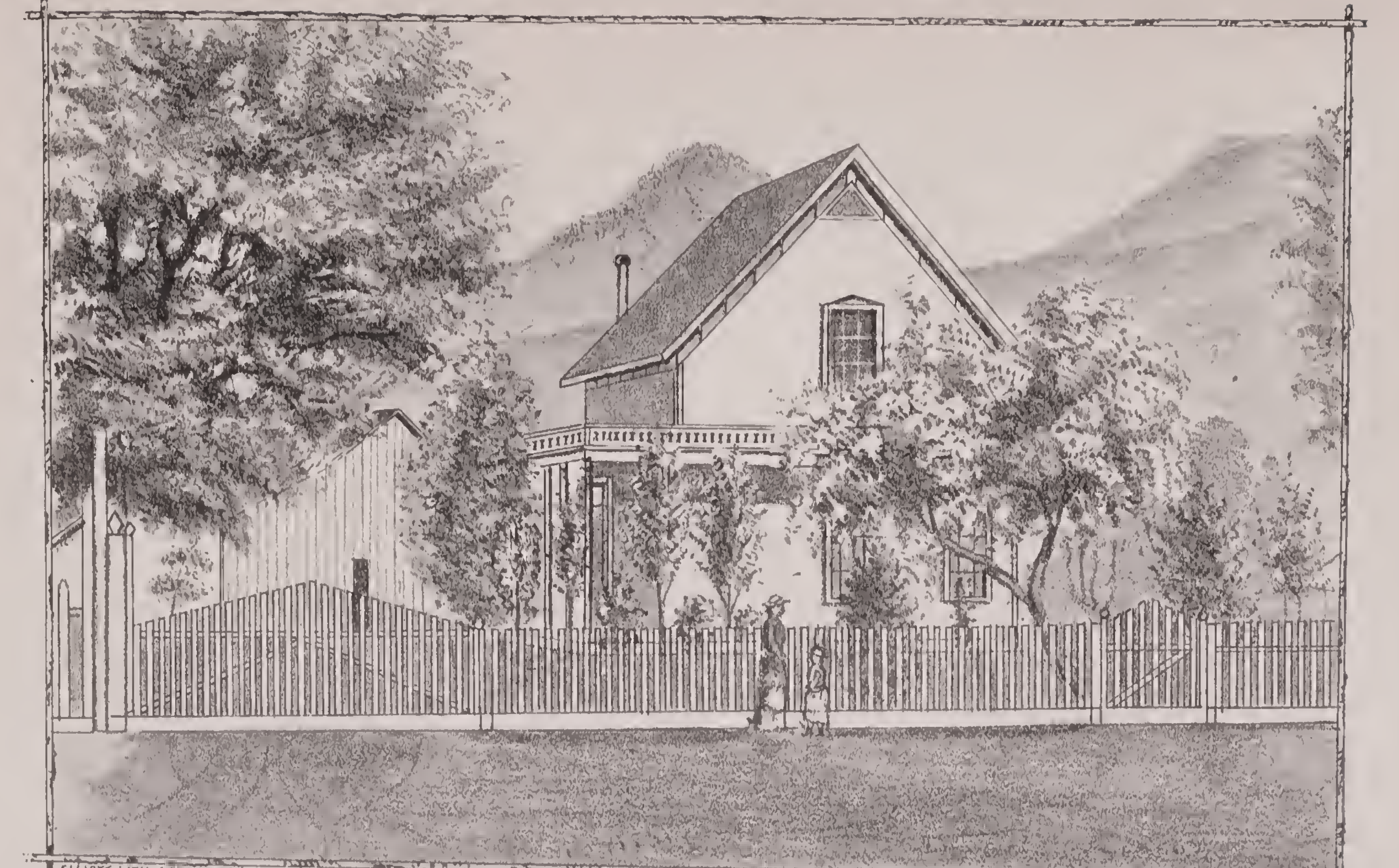
FIRST DISCOVERIES OF GOLD.

The first actually known of the metals was the reported discovery, as early as 1802, of silver at Alizal, in Monterey County. In 1825, Jedediah S. Smith, at the head of a party of American trappers, while crossing the Sierra Nevada in the vicinity of Mono Lake, "found placer gold in quantities and brought much of it with him to the encampment on Green River."

This is the first known discovery of gold in California, and much of the honor that is showered upon James W. Marshal, should properly fall upon this intrepid and enterprising pioneer trapper, Jedediah S. Smith.

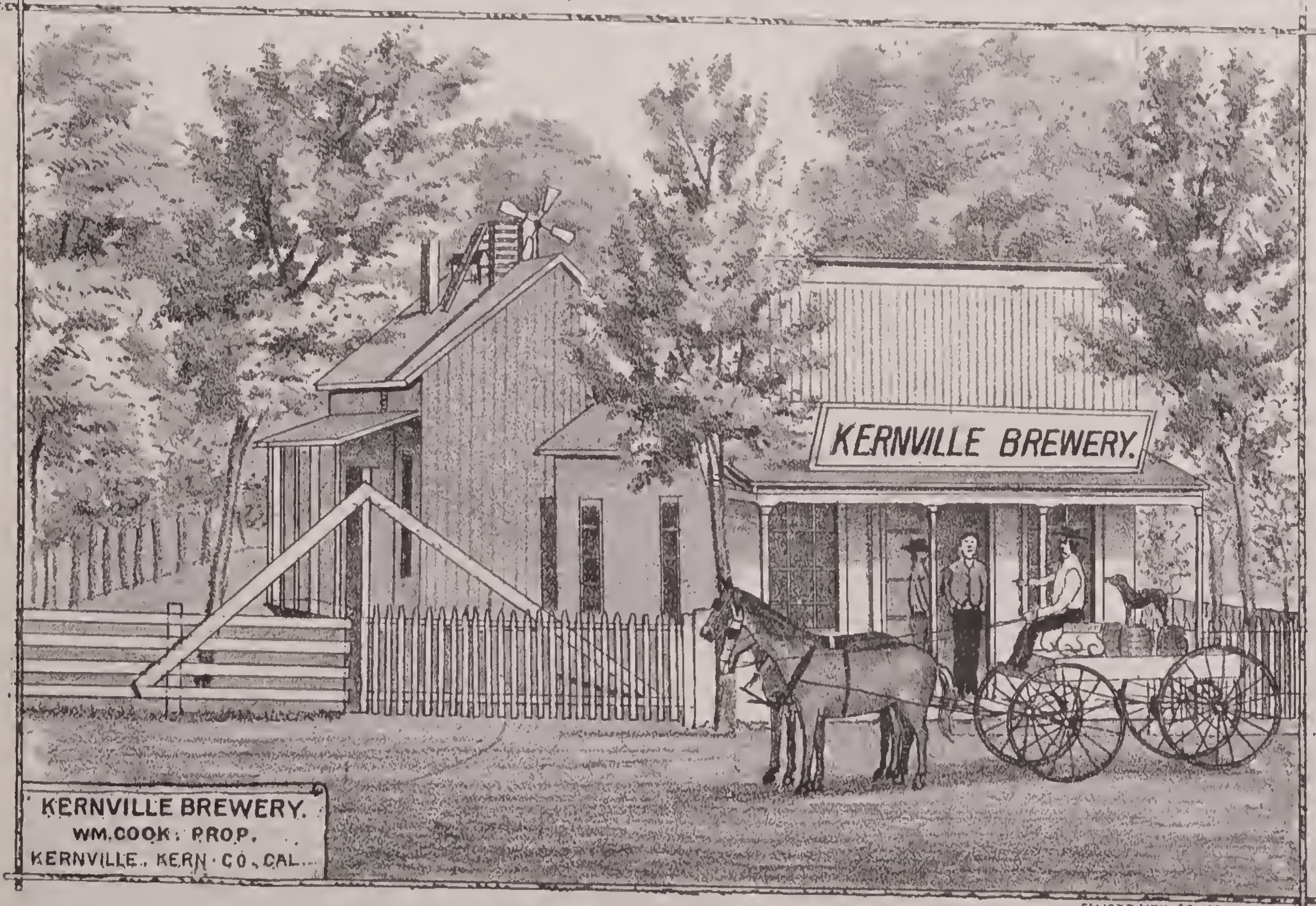
In 1828, at San Isador, in San Diego County, and in 1833, in the western limits of Santa Clara County, gold was also found.

Gold placers were discovered in 1841, by a Canadian, near the Mission of San Fernando, forty-five miles northeast of Los Angeles, and were worked until 1848, in a small way, yielding some $6,000 annually.



ELLIOTT. LITH. 421 MONT. ST.

RESIDENCE OF R. H. EVANS. KERNVILLE. KERN CO. CAL.


KERNVILLE BREWERY.

KERNVILLE BREWERY.
WM. COOK. PROP.
KERNVILLE. KERN. CO. CAL.

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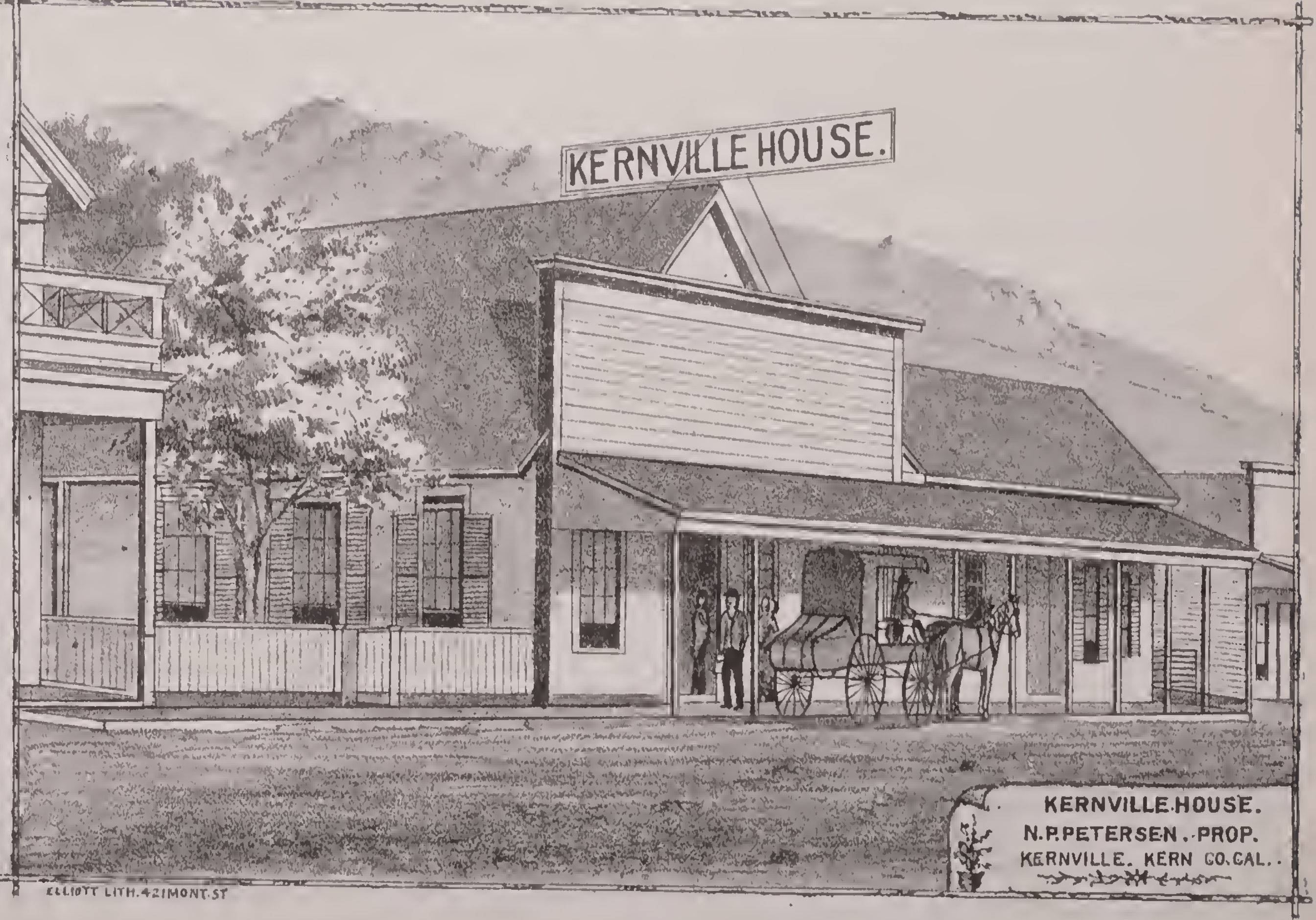

KERNVILLE HOUSE.

KERNVILLE HOUSE.
N. P. PETERSEN. PROP.
KERNVILLE. KERN CO. CAL.

ELLIOTT LITH. 421 MONT. ST

Organization of the Government.

1846.—Thomas O. Larkin, the American Consul at Monterey, who under instructions had gained a great amount of influence among the leading native Californians, suggested and caused the issuance of a circular by Governor Pico, in May, 1846, calling a convention of thirty of the more prominent men in the country. This assemblage was to discuss the condition of affairs and to petition the Mexican authorities for an improved government; if the request met with a refusal, the territory was to be sold to some other power. The tendency of this discussion would be towards the transfer of the territory to the United States. The convention did not meet, however, as events transpired which precluded the possibility of a peaceful transfer. Lieut. John C. Fremont arrived in that year, and soon became embroiled in a wordy conflict with the authorities, and Ide and his party declared a revolution at Sonoma as heretofore mentioned.

The more intelligent settlers of California saw at an early day the urgent necessity of a regular constitution and laws. The provisional government existing since the conquest of 1847 was but a temporary affair and by no means able to satisfy the wants of a great, growing, and dangerous population which had now so strangely and suddenly gathered together. The inhabitants could not wait the slow movements of Congress. Attempts were made by the citizens of San Francisco, Sonoma, and San Jose to form legislatures for themselves, which they invested with supreme authority. It was quickly found that these independent legislative bodies came into collision with each other, and nothing less than a general constitution would be satisfactory to the people.

Great meetings for these purposes were held at San Jose, San Francisco, Monterey, Sonoma, and other places, in the months of December and January, 1848-49. It was resolved that delegates be chosen by popular election from all parts of the State to meet at San Jose. These delegates were to form a Constitution. These movements were general on the part of all citizens, and no partizan feeling was shown in the matter.

CONVENTION CALLED AT MONTEREY.

1849.—While the people were thus working out for themselves this great problem, the then great Military Governor, General Riley, saw fit to issue on the 3d of June, 1849, a proclamation calling a Convention to meet at Monterey on the 1st of September, to frame a Constitution.

These delegates were forty-eight in number, and while they represented all parts of the State, they were also representatives of every State in the Union. They were men not much used to those deliberations expected of such a body, but they determined to do their duty in the best possible manner.

The delegates, at their first regular meeting on the 4th of September, chose, by a large majority of votes, Dr. Robert Semple as President of the Convention; Capt. William G. Marcy was then appointed Secretary, and the other necessary offices were properly filled up. After rather more than a month's constant labor and discussion, the existing Constitution of California was drafted, and finally adopted by the Convention.

THE FIRST STATE CONSTITUTION.

This document was formed after the model of the most approved State Constitutions of the Union, and was framed in strict accordance with the most liberal and independent opinions of the age.

On the 13th of October, 1849, the delegates signed the instrument, and a salute of *thirty-one* guns was fired.

The house in which the delegates met was a large, handsome two-story stone erection, called "Colton Hall," and was, perhaps, the best fitted for their purposes of any building in the country. It was erected by Walter Colton, who was the Alcalde of Monterey, having been appointed by Commodore Stockton July 28, 1846. The building is still standing in a good state of preservation.

The Constitution was submitted to the people and was adopted on the 13th of November, a Governor being elected at the same time:—

For the Constitution	12,064
Against the Constitution	811
For Governor, Peter H. Burnett	6,716
" W. Scott Sherwood	3,188
" J. W. Geary	1,475
" John A. Sutter	2,201
" William M. Stewart	719
Total vote on Constitution	12,875
Total vote for Governor	14,299

This vote was light, and was chiefly cast at San Francisco, Los Angeles, San Diego, Santa Barbara, San Jose, Stockton, Sacramento, and the mines most convenient to the latter places. The miners were moving about from place to place, were scattered along the rivers and in the mountains, and on account of the limited facilities for communication and the short time between the adjournment of the Convention and the day of the election, there was no opportunity offered to thousands to exercise the right of franchise on this occasion, but they gladly acquiesced in the decision of their countrymen.

FIRST CALIFORNIA LEGISLATURE.

On Saturday, the 15th of December, 1849, the first Legislature of the State of California met at San Jose. The Assembly occupied the second story of the State House, but the lower portion, which was designed for the Senate Chamber, not being ready, the latter body held their sittings, for a short period, in the house of Isaac Branham, on the southwest corner of Market Plaza. The State House proper was a building sixty-five feet long, forty feet wide, two stories high and adorned with a piazza in front. The upper story was simply a large room with a stairway leading thereto. This was the Assembly Chamber. The lower story was divided into four rooms; the largest, 20x40 feet, was designed for the Senate Chamber, and the others were used by the Secretary of State and the various committees. The building was destroyed by fire on the 29th of April, 1853, at four o'clock in the morning.

SOLONS DISSATISFIED WITH SAN JOSE.

On the first day of the first legislative session only six Senators were present, and perhaps twice as many Assemblymen. On Sunday, Governor Riley and Secretary Halleck arrived, and by Monday nearly all the members were present. Number of members: Senate, 16; Assembly, 36. Total, 52. No sooner was the Legislature fairly organized than the members began to growl about their accommodations. They didn't like the legislative building, and swore terribly, between drinks, at the accommodations of the town generally. Many of the solons expressed a desire to move the Capitol from San Jose immediately. On the 19th instant George B. Tingley, a member of the House from Sacramento, offered a bill to the effect that the Legislature remove the Capitol at once to Monterey. The bill passed its first reading and was laid over for further action.

FIRST STATE SENATORS ELECTED.

On the 20th Governor Riley resigned his gubernatorial office, and by his order, dated Headquarters Tenth Military Department, San Jose, California, December 20, 1849, (Order No. 41), Capt. H. W. Halleck, afterwards a General in the war of the Rebellion, was relieved as Secretary of State. On the same day Gov. Peter Burnett was sworn by K. H. Dimick, Judge of the Court of First Instance.

The same day, also, Col. J. C. Fremont received a majority of six votes, and Dr. M. Gwin a majority of two for Senators of the United States. The respective candidates for the United States Senate kept *ranches*, as they were termed; that is, they kept open house. All who entered drank free and freely. Under the circumstances they could afford to. Every man who drank of course wished that the owner of the establishment might be the successful candidate for the Senate. That wish would be expressed half a dozen times a day in as many different houses. A great deal of solicitude would be indicated just about the time for drinks.

FIRST INAUGURAL BALL.

On the evening of the 27th the citizens of San Jose, having become somewhat alarmed at the continued grumbling of the strangers within their gates, determined that it was necessary to do something to content the assembled wisdom of the State, and accordingly arranged for a grand ball, which was given in the Assembly Chamber. As ladies were very scarce, the country about was literally ' raked," to use the expression of the historian of that period, "for señoritas," and their red and yellow flannel petticoats so variegated the whirl of the dance that the American-dressed ladies, and in fact the solons themselves, were actually bewildered, and finally captivated, for, as the record further states, " now and then was given a sly wink of the eye between some American ladies, and between them and a friend of the other sex, as the señoritas, bewitching and graceful in motion, glided by with a captured member." But, notwithstanding this rivalry, the first California inaugural ball was a success. " The dance went on as merry as a marriage bell. All were in high glee. Spirits were plenty. Some hovered where you saw them not, but the sound thereof was not lost."

THE NOTED LEGISLATURE.

Speaking of the appellation applied to the first body of California law-makers, *i.e.*, " The Legislature of a Thousand Drinks," the same quaint writer says, " with no disrespect for the members of that body, I never heard one of them deny that the baptismal name was improperly bestowed upon them. They were good drinkers—they drank like men. If they could not stand the ceremony on any particular occasion they would lie down to it with becoming grace. I knew one to be laid out with a white sheet spread over him, and six lighted candles around him. He appeared to be in the spirit land. He was really *on* land with the spirits in him—too full for utterance. But to do justice to this body of men, there were but a very few among them who were given to drinking habitually, and as for official labor, they performed probably more than any subsequent legislative body of the State in the same given time.

In the State House there was many a trick played, many a joke passed, the recollection of which produces a smile upon the faces of those who witnessed them. It was not infrequently that as a person was walking up-stairs with a lighted candle, a shot from a revolver would extinguish it. Then what shouts of laughter rang through the building at the scared individual. Those who fired were marksmen; their aim was true and they knew it."

THE FANDANGO PATRONIZED.

Speaking of the way in which these gay and festive legislators passed their evenings, a writer says: " The almost nightly amusement was the fandango. There were some respectable ones, and some which at this day would not be called respectable. The term might be considered relative in its signification. It depended a good deal on the spirit of the times and the notion of the attendant of such places. Those fandangos, where the members kept their hats on and treated their partners after each dance, were not considered of a high-toned character (modern members will please bear this in mind).

There were frequent parties where a little more gentility was exhibited. In truth, considering the times and the country, they were very agreeable. The difference in language, in some degree prohibited a free exchange of ideas between the two sexes when the Americans were in excess. But then, what one could not say in so many words he imagined, guessed, or made signs, and, on the whole, the parties were novel and interesting.

AMUSEMENTS FOR THE MEMBERS.

The grand out-door amusements were the bull and bear fights. They took place sometimes on St. James, and sometimes on Market Square. Sunday was the usual day for bull-fights.

On the 3d day of February the legislators were entertained by a great exhibition of a fellow-man putting himself on a level with a beast. In the month of March there was a good deal of amusement, mixed with a considerable amount of excitement.

It was reported all over the Capital that gold had been discovered in the bed of Coyote Creek. There was a general rush. Picks, shovels, crow-bars and pans had a large sale. Members of the Legislature, officials, clerks, and lobbyists concluded suddenly to change their vocation. Even the sixteen dollars per day which they had voted themselves was no inducement to keep them away from Coyote Creek. But they soon came back again, and half of those who went away would never own it after the excitement was over. Beyond the above interesting and presumably prominent facts history gives us very little concerning the meeting of our first Legislature except that the session lasted 129 days, an adjournment having been effected on the 22d of April, 1850.

SECOND SESSION OF LEGISLATURE.

1851.—The Second Legislature assembled on the 6th of January, 1851. On the 8th the Governor tendered his resignation to the Legislature, and John McDougal was sworn in as his successor. The question of the removal of the capital from San Jose was one of the important ones of the session, so much so that the citizens of San Jose were remarkably active in catering to the wishes of the members of the legislative body. They offered extravagant bids of land for the capital grounds, promised all manner of buildings and accommodations, and even took the State scrip in payment for Legislators' board. But it was of no use.

Vallejo was determined to have the capital, and began bribing members right and left with all the city lots they wanted. The act of removal was passed February 14th, and after that date the Legislators had to suffer. The people refused to take State scrip for San Jose board, charged double prices for everything; and when, on the 16th of May, the Solons finally pulled up stakes and left, there was not thrown after them the traditional old shoe, but an assorted lot of mongrel oaths and Mexican maledictions greeted them on their long-wished-for departure.

REMOVALS OF THE CAPITAL.

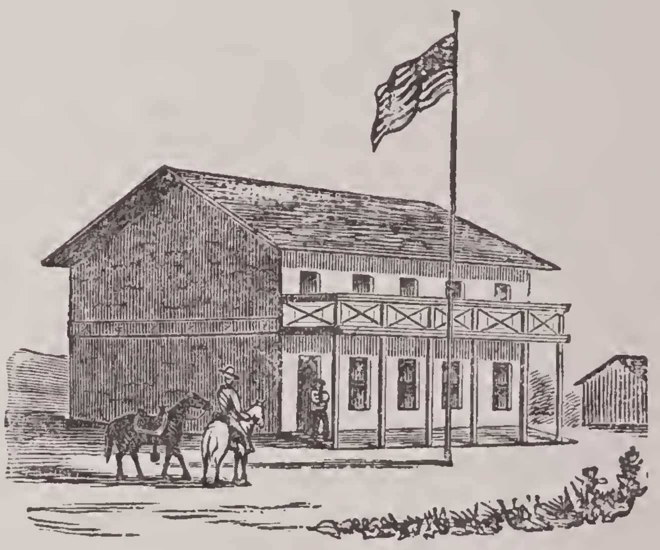
Third Session—Convened at Vallejo, the new Capital, January 5, 1852. Number of members: Senate, 27; Assembly, 62 Total, 89.

Fourth Session—Convened at Vallejo, January 2, 1853 removed to Benicia, February 4, 1853.

Fifth Session—Convened at Benicia, January 2, 1854, removed to Sacramento, February 25, 1854, where it has since remained.

PRESENT CAPITOL BUILDING.

In the beginning of 1860, the citizens of Sacramento deeded to the State, lots of land in the city on which a new State Capitol could be built. Work commenced the 15th day of May, 1861, and the corner-stone was laid with Masonic ceremonies, conducted by N. Green Curtis, then Grand Master of the Order. In a few years other blocks were added, so that now the grounds extend from Tenth to Fifteenth and from L to N Streets. For this addition the citizens subscribed $30,000, the State appropriation not being sufficient to fully pay for the land. The original architect was Reuben Clark, to whom the greatest meed of praise should be given for the beautiful building that now adorns the city and is an honor to the State. After the dedication ceremonies, work was discontinued on it for some time, and it was not until 1865, that labor was recommenced in earnest. Up to November 1, 1875, the cost, added to the usual items for repairs and improvements, amounted to $2,449,428.31. The building is 240 feet in height, the height of the main building being 94 feet. Its depth is 149 feet and its length 282. The Assembly Chamber is 73 by 75, with a height of 48 feet, the Senate 73 by 56, with the same height. The first or ground story of the building, is 16 feet above level of the surrounding streets.


State House at San Jose, 1849.

The State Capitol, one of the prettiest in America, stands in a park of eight blocks, terraced and ornamented with walks, drives, trees, shrubs, and plants, forming one of the prettiest spots in the country. This fine structure cost about $2,500,000, and its towering dome, surmounted by the Temple and Goddess of Liberty, rises 240 feet, and is the first object presented to view in the distance from whatever direction the traveler approaches the city. A fine engraving of this building will be found as a frontispiece.

The State Capitol Park, in which are located the Capitol building, the State Armory, and the State Printing Office, embraces ten full blocks of land, and the breadth of four streets, running north and south. Recent improvements lay out the grounds in a graceful landscape style, of extensive lawn and clumps of trees, and arranges them more especially as a drive. The main drive is in the form of an ellipse, the roadway being forty feet in width, and estimated to be about two-thirds of a mile in length. It is bordered by a double row of trees, and the grounds intervening between the roadway and the fences are being tastefully laid out in the best style of landscape gardening.

FORMING OF A NEW CONSTITUTION.

The Constitution which was framed at Monterey, when the State was yet in its swaddling clothes, answered every purpose for a number of years, but the entire body politic had changed, and the popular voice became clamorous for a change in the organic law of the State. The question had often been before mooted, and votes taken upon calling a convention for the purpose of framing a new Constitution, but public sentiment did not reach the requisite condition until the general election of 1877, at which time "Constitutional Convention, Yes," carried with an overwhelming majority. During the session of the Legislature, which followed this election, a bill was framed and passed, which provided for the election of delegates to the convention, and which was approved March 30, 1878. Thirty-two of the delegates were to be elected from the State at large, not more than eight of whom should reside in any one Congressional district. In accordance with a proclamation issued by the Governor, an election for the purpose of of choosing delegates to the convention was held June 19, 1878. The body comprising the Constitutional Convention, met at Sacramento City, September 28th of that year, and continued in session 175 days. The day set for the people of the State to adopt or reject the result of the labors of the Convention was May 7, 1879, and there was a very strong, and in some instances, a bitter fight made over it; those opposing it, citing wherein the old Constitution had proved satisfactory, and wherein the new organic law would prove disastrous; while those who desired its adoption were as ready to show up the weak points of the old, and its inadequacy to the demands of the present advanced state of affairs, and wherein a new would almost prove a panacea for all our ills, both social, moral, and political. Thus the matter continued to be agitated until the day had come on which the die should be cast, and greatly to the surprise of everybody, the decision of the people of the State was in favor of the new law.

LIST OF CALIFORNIA GOVERNORS.

The Governors of California since its settlement to the present time were as follows:—

SPANISH RULE.

Gaspar de Portala	1767–1771
Felipe de Barri	1771–1774
Felipe de Neve	1774–1782
Pedro Fajes	1782–1890
Jose Antonio Romea	1790–1792
*Jose J. de Arrillaga	1792–1794
Diego de Borica	1794–1800
Jose J. de Arrillaga	1800–1814
*Jose Arguello	1814–1815
Pablo Vincente de Sola	1815–1822

MEXICAN RULE.

Pablo Vincente de Sola	1822–1823
Luis Arguello	1823–1825
Jose Maria de Echeandia	June, 1825—Jan., 1831
Manuel Victoria	Jan., 1831—Jan., 1832
*Pio Pico	Jan., 1832—Jan., 1833
Jose Figuerra	Jan., 1833—Aug., 1835
*Jose Castro	Aug., 1835—Jan., 1836
Nicolas Gutierrez	Jan., 1836—Apr., 1836
Mariano Chico	Apr., 1836—Aug., 1836
Nicolas Gutierrez	Aug., 1836—Nov., 1836
Juan B. Alvarado	Nov., 1836—Dec., 1842
Manuel Micheltorena	Dec., 1842—Feb., 1845
Pio Pico	Feb., 1845—July 1846

AMERICAN RULE—TERRITORIAL.

Com. John D. Sloat	July 7, 1846—Aug. 17, 1846
Com. R. F. Stockton	Aug. 17, 1846—Jan. —, 1847
Col. John C. Fremont	Jan. —, 1847—Mar. 1, 1847
Gen. S. W. Kearny	Mar. 1, 1847—May 31, 1847
Col. Richard B. Mason	May 31, 1847—Apr. 13, 1849
Gen. Bennet Riley	Apr. 13, 1849—Dec. 20, 1849

STATE—GOVERNORS.

NAME.	INAUGURATED.
†Peter H. Burnett	Dec. 20, 1849
John McDougal	Jan. 9, 1851
John Bigler	Jan. 8, 1852
John Bigler	Jan. 8, 1854
J. Neely Johnson	Jan. 8, 1856
John B. Weller	Jan. 8, 1858
†Milton S. Latham	Jan. 8, 1860
John G. Downey	Jan. 14, 1860
Leland Stanford	Jan. 8, 1862
‡Frederick F. Low	Dec. 2, 1863
Henry H. Haight	Dec. 5, 1867
†Newton Booth	Dec. 8, 1871
Romualdo Pacheco	Feb. 27, 1875
William Irwin	Dec. 9, 1875
George C. Perkins	Jan. 5, 1880

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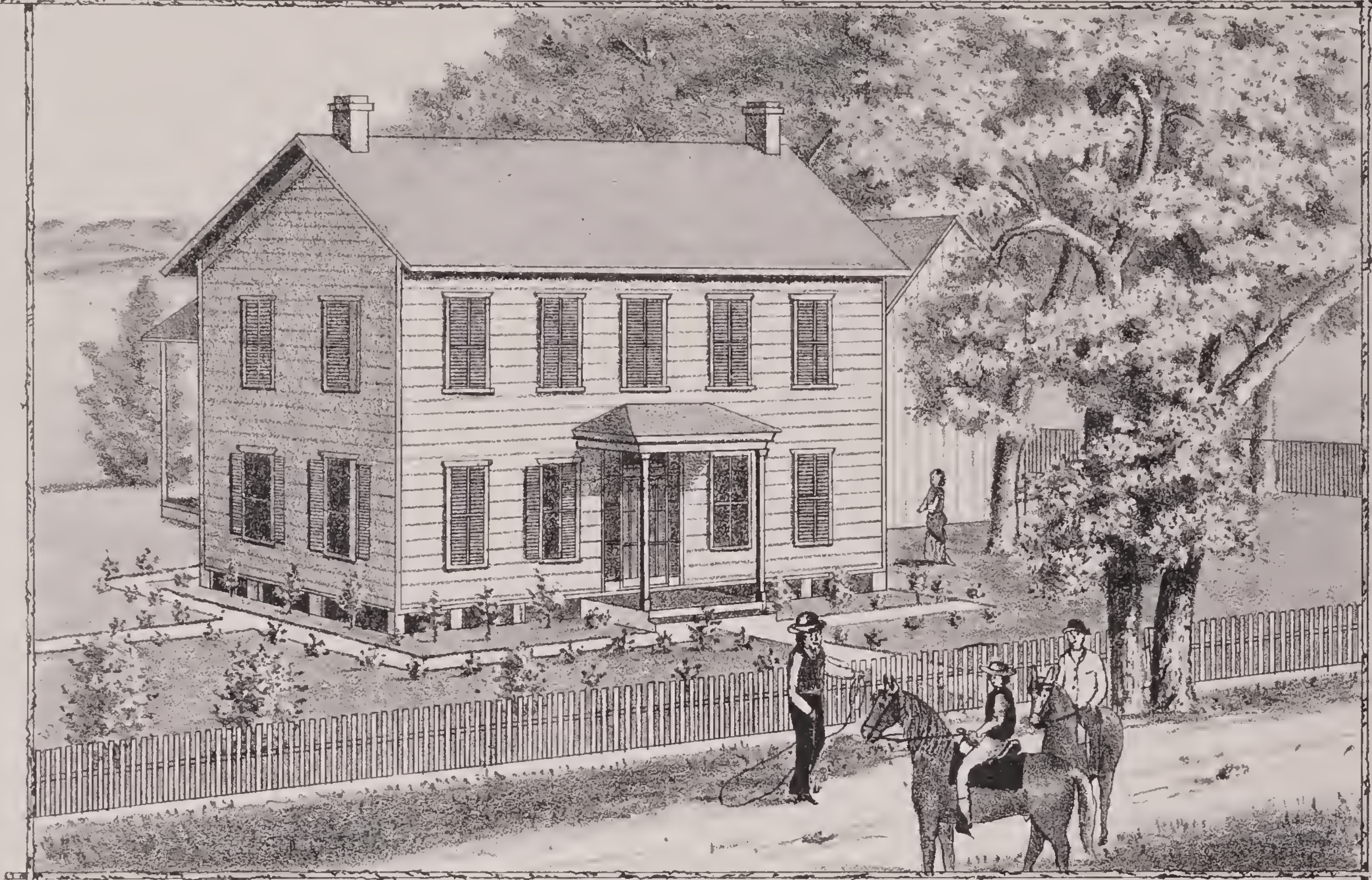
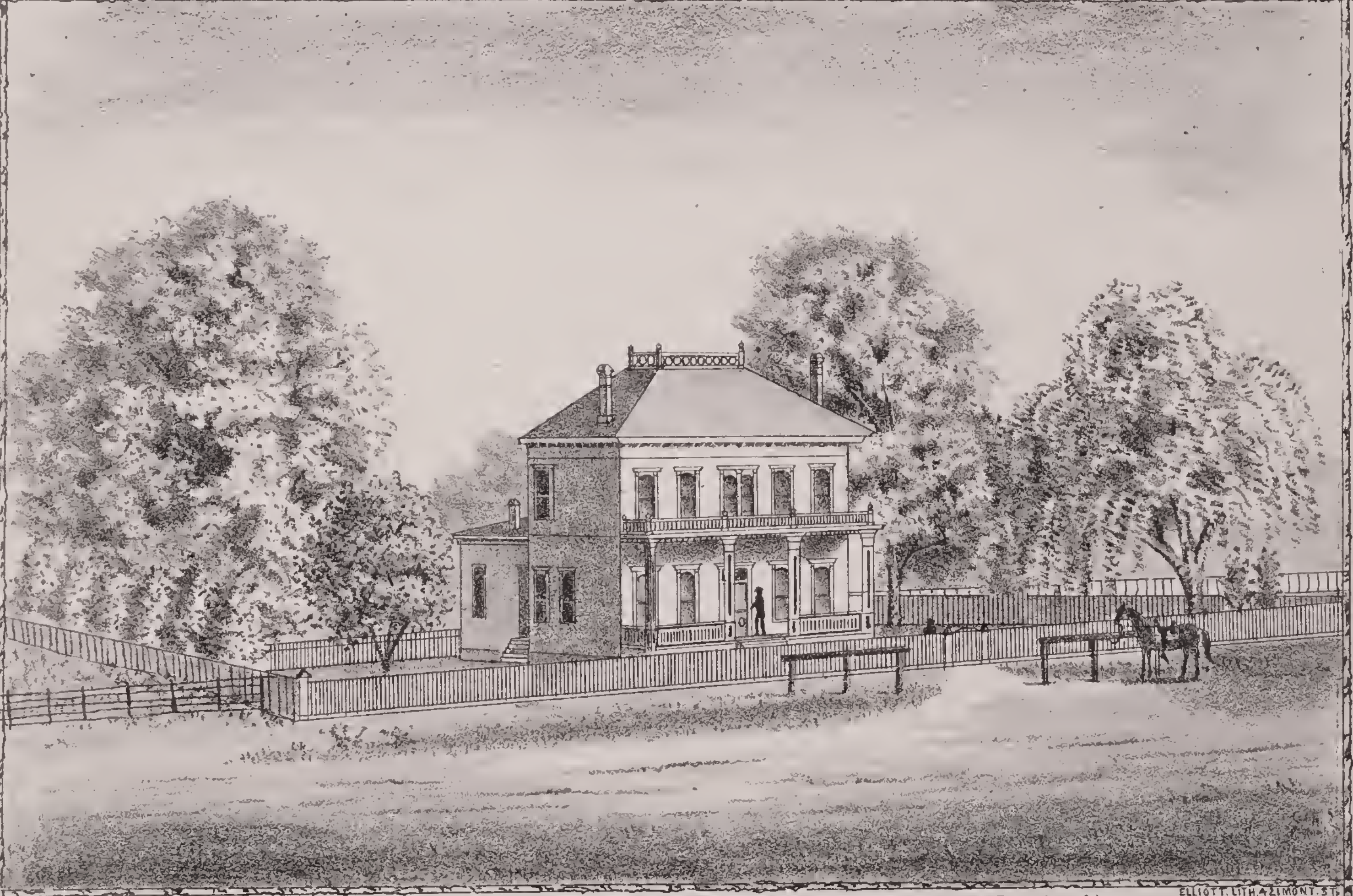
* *Ad interim.* † Resigned. ‡ Term increased from two to four years.



RESIDENCE OF G. F. RICE. OUTSIDE CREEK TULARE CO. CAL.

ELLIOTT. LITH. 421 MONT. ST.



RESIDENCE OF J. C. FISHER. 6 MILES EAST OF VISALIA. TULARE CO. CAL.

ELLIOTT. LITH. 421 MONT. ST.

Geographical Features.

THE Coast Range of mountains runs parallel to the ocean, and has an altitude of from 2,000 to 4,000 feet above the sea, and an average width of twenty to forty miles.

On the general eastern boundary of California, and running nearly its entire length, lies the Sierra Nevada (snowy range), its summit being generally above the region of perpetual snow. In this State it is about 450 miles long and 80 miles wide, with an altitude varying from 5,000 to 15,000 feet above the level of the sea. Nearly its whole width is occupied with its western slope, descending to a level of 300 feet above the sea; its eastern slope, five or six miles wide, terminating abruptly in the great interior basin, which is 5,000 feet above the sea level. The sides of the Sierra Nevada, to the height of about 8,000 feet, are covered with dense forests of valuable timber, which is succeeded by rugged granite and perpetual snow.

THE CALIFORNIA ALPS.

John Muir says of the region about the head-waters of King's River:—

"Few portions of the California Alps are, strictly speaking picturesque. The whole massive uplift of the range, 450 miles long by about seventy miles wide, is one grand picture, not clearly divisible into smaller ones; in this respect it differs greatly from the older and riper mountains of the Coast Range. All the landscapes of the Sierra were remodeled deep down to the roots of their granite foundations by the developing ice-floods of the last geological winter.

"On the head-waters of the King's River is a group of wild Alps on which the geologist may say the sun has but just begun to shine, yet in a high degree picturesque, and in all its main features so regular and evenly balanced as almost to appear conventional—one somber cluster of snow-laden peaks with gray pine-fringed granite bosses braided around its base, the whole surging free into the sky from the head of a magnificent valley, whose lofty walls are beveled away on both sides so as to embrace it all without admitting anything not strictly belonging to it. The foreground was now all aflame with autumn colors, brown and purple and gold, ripe with the mellow sunshine; contrasting brightly with the deep, cobalt blue of the sky, and the black and gray and pure, spiritual white of the rocks and glaciers. Down through the midst the young river was seen pouring from its crystal fountains, now resting in glassy pools as if changing back again into ice; now leaping in white cascades as if turning to snow; gliding right and left between the granite bosses, then sweeping on through the smooth meadowy levels of the valley, swaying pensively from side to side with calm, stately gestures, past dipping willows and sedges, and around groves of arrowy pine; and throughout its whole eventful course, flowing fast or slow, singing loud or low, ever filling the landscape with spiritual animation, and manifesting the grandeur of its sources in every movement and tone."

MOUNT DIABLO.

The most familiar peak in the State is, however, Mount Diablo, being very near its geographical center, and towering above all other peaks—prominent from its inaccessibility and magnificent panoramic sweep from its top—prominent from its selection by the Government as the initial point of base and meridian lines in the land survey, it being the reference point in about two-thirds of the State.

It stands out boldly 3,856 feet high, overlooking the tranquil ocean, thirty miles due east from the Golden Gate, serving as a beacon to the weary, ses-tossed mariner, far out on the blue, briny billows, pointing him to a haven of security in the great harbor through the Golden Gate itself; and even on through bay and strait to anchorages safe and deep, up to where the foot-stones of the great pile meet and kiss the brackish waters. Grand old mountain, majestic, silent, yet a trumpet-tongued preacher! Who is there of the prosperous dwellers upon its slopes, or near its grateful shadows, that, going or coming by land or sea, does not look upon that blue receding or advancing pile with a full heart?

It is believed there are few points on the earth's surface from which so extensive an area can be seen as from this mountain. The writer has from its summit, counted thirty-five cities and villages, where reside two-thirds of the inhabitants of the State.

The two great mountain ranges unite at the northern and southern part of the State, each connecting range having a lofty peak.

MOUNT SHASTA.

In the northern connecting link is Mount Shasta, 14,442 feet high. It rears its great craggy snow-covered summit high in the air, and is often seen at a distance of 200 miles at the southwest. It takes about three days to reach its summit and return. You can ride to the snow line the first day, ascend to the top the following morning, descend to your camp in the afternoon, and return to the valley on the third day. Mount Shasta has a glacier, almost, if not quite, the only one within the limits of the United States. The mountain is an extinct volcano. Its summit is composed of lava, and the eye can easily trace the now broken lines of this old crater when viewed from the north. Mount Shasta is clothed with snow for a virtual mile down from its summit during most of the year.

MOUNTS WHITNEY AND SAN BENARDINO.

Mount Whitney is the highest point in the United States (14,900 feet); but Mount Shasta (14,442 feet) makes a more imposing appearance because it rises in solitary grandeur 7,000 feet above any mountains near it. A signal station has lately been established on Mount Whitney. In the Sierra Nevada Range are more than 100 peaks over 10,000 feet high, according to the

State Geographical Survey. In the southern connecting link is snow-capped Mount San Bernardino 11,600 feet above the sea level.

GREAT SAN JOAQUIN VALLEY.

Between these two great mountain ranges, lies the great interior basin of the State, comprising the Sacramento and San Joaquin Valleys, really but one geographical formation, drained by the two great rivers bearing their respective names, and their tributaries; an uninterrupted level country of exceeding fertility, and the great future wheat growing section of the State. This basin extends north and south about 400 miles, with an average breadth of from fifty to sixty miles, rising into undulating slopes and low hills as the mountains are approached on either side. It is covered with a diluvium from 400 to 1,500 feet deep, and presents evidences of having once been the bed of a vast lake.

Innumerable valleys are formed by spurs shooting off from the western slope of the Sierra Nevada Range, and from the Coast Range on either side, extending the entire length of the State; well watered by springs and living streams, possessing a good soil and climate, and every way adapted to profitable mixed husbandry.

This great valley is drained from the north by the Sacramento River, and from the south by the San Joaquin, which, after meeting and uniting in the center of the basin, break through the Coast Range to the Pacific. At the southern extremity are the Tulare Lakes and marshes which, in the wet season, cover a large extent of surface. Along the great rivers the valleys are generally low and level, and extremely fertile rising into undulating slopes and low hills as the mountains are approached on either side, and broken on the east by numerous spurs from the Sierras. The following table gives the most noted elevations in the State and their distance from San Francisco.

ALTITUDE OF PROMINENT POINTS IN THE STATE.

NAMES OF PLACES. (SIERRA NEVADA RANGE.)	Distance fr'm S.F.	Altitude ab've sea	NAMES OF PLACES. (COAST RANGE.)	Distance fr'm S. F.	Altitude ab've sea
Mount Whitney.....	173	14,900	Snow Mountain	114	7,500
Mount Shasta.......	244	14,442	Mount St. John.....	96	4,500
Mount Tyndall......	160	14,386	Mount Hamilton	52	4,400
Mount Dana........	148	13,227	Mount St. Helena ...	70	4,343
Mount Lyell	144	13,217	Mount Diablo	32	3,856
Mount Drewer	152	13,886	Mount Loma Prieta..	54	4,040
Mount Silliman	130	11,623	Mount Balley	280	6,375
Lassen Butte........	183	10,577	Mount Tamalpais....	15	2,604
Stanislaus Peak	125	11,500	Marysville Buttes...	92	2,030
Round Top	120	10,650	Farallone Islands	34	200
Downieville Buttes ..	157	8,720	Clay Street Hill.....	—	387
Colfax Village......	144	2,431	Red Bluff...........	225	307
Sacramento	90	30	Redding	260	558

THE STAPLE PRODUCTIONS.

Prior to 1864, no very marked results were reached in farming in California, the export of agricultural products, with the exception of wool, not having been such as to attract attention abroad. And owing to the drought that prevailed in 1863 and 1864, California had but little grain or other farm produce to spare, flour having been to some extent imported. The large extent, undoubted fertility, and known capabilities of the lands of the San Joaquin, Sacramento and Salinas Valleys give assurance that agriculture will become the predominant interest of its people.

The principal staples which the soil and climate of these valleys favor are the cereal grains. Wild oats are indigenous to the country, and on lands allowed to run wild, will run out other small grains, but are cultivated only as a forage plant which, cut while green, makes an excellent hay. Barley also thrives well, and, in a green state, is often cut for hay. But the great staple, from being "the staff of life," and the ease of cultivation over other products in this climate, is wheat. In a moderately rainy season it is capable of perfecting its growth before the heats of summer have evaporated the moisture from the roots, and a crop is nearly sure of being made. No disease, rust, or insect harms the grain, although smut was in early days very prevalent, but, by proper treatment has nearly disappeared. There has always been a good demand for the surplus crop of this cereal, in the mines and for export, and its cultivation has been profitable.

Cotton cultivation has been experimented upon in Fresno County, and in the Tulare Basin, where the yield has averaged 500 pounds to the acre of a fine textile fibre.

Next to the cultivation of cereals, the vine engrosses the minds of California agriculturists more than any other production, the product of her vineyards finding favor in all parts of the world.

Nearly a thousand vessels enter the port of San Francisco in a year, and a large number of these are required to carry the wheat to Europe. Some $15,000,000 is annually received for wheat alone, and it is shipped to the following countries, arranged in order according to the amount which was sent them: Great Britain, Belgium, France, Australia, Spain, South America, New Zealand, China, Germany, Hawaiian Islands, British Columbia, Tahiti, and Mexico. By this list it is seen that we contribute breadstuffs to nearly every country of the globe.

CALIFORNIA'S VARIED INDUSTRIES.

California has now a total area of 7,000,000 acres inclosed, 4,000,000 cultivated—nine-tenths of the cultivated land being in cereals, and 90,000 in grape-vines. She has 2,500,000 bearing trees of temperate fruits—apple, pear, peach, plum, prune, apricot, nectarine, and cherry—300,000 bearing trees of semi-tropical fruits— orange, lemon, lime, fig, and olive—400,000 almond and English walnut trees, 4,400 miles of mining ditchs, 260 gold quartz-mills, 300 saw-mills and 140 grist-mills. Among her annual products are 12,000 tons of wool, 5,000 of butter, 1,500 of cheese and 500 of honey, 6,000,000 gallons of wine and 14,000,000 of beer, and 500,000,000 feet of sawn lumber. The assessed value of her property is $578,000,000, of which half is in San Francisco and its suburbs.

AGRICULTURAL PRODUCTIONS.

It is as an agricultural State now, however, that California is attracting attention, and to show what we are doing in that line we append a table of receipts and exports from San Francisco of wheat, flour, barley, oats, beans and potatoes since 1856.

Each year terminates with June 30th :—

WHEAT AND FLOUR.

RECEIPTS.		EXPORTS.	
Date.	Equal to bbls. Flour.	Date.	Equal to bbls. Flour.
1857	151,470	1857	43,960
1858	116,474	1858	6,654
1859	212,888	1859	20,618
1860	419,749	1860	186,182
1861	834,020	1861	707,156
1862	560,304	1862	385,600
1863	781,138	1863	492,724
1864	715,975	1864	509,730
1865	310,691	1865	99,932
1866	917,217	1866	626,060
1867	1,967,197	1867	1.697,402
1868	1,878,508	1868	1,691,115
1869	2,238,800	1869	1,912,095
1870	2,244,061	1870	1 974,259
1871	1,597,756	1871	1,386,834
1872	937,203	1872	738 206
1873	3,815,911	1873	3,537,874
1874	3,079,473	1874	3,069.123
1875	3,731,104	1875	3,413,669
1876	2,652,461	1876	2,490,633
1877	4.115,554	1877	4,029,253
1878	1,864,644	1878	1,765 394
1879	3,839,180	1879	3,867,955
1880	2,891,660	1880	2,591,545

BARLEY AND OATS.

BARLEY.			OATS.		
	Receipts, in centals.	Exports, in centals.		Receipts, in centals.	Exports, in centals.
1857	455,823	66,368	1857	157,344	8,370
1858	637,568	142,612	1858	186,039	107,659
1859	779,870	295,836	1859	320,248	218,647
1860	549,293	69,246	1860	216,898	90,682
1861	677,455	339,536	1861	315,078	116,467
1862	611,227	188,617	1862	351,633	154,585
1863	432,203	49,809	1863	177,105	39,986
1864	611,143	40,329	1864	304,044	91,086
1865	438,432	13,920	1865	273,973	3.366
1866	1,037,209	349,990	1866	343,042	113,966
1867	730,112	142,154	1867	328,478	89,331
1868	638,920	31,342	1868	221,811	5,685
1869	608,988	91,202	1869	234,498	21,934
1870	752,418	300,528	1870	299,143	13,957
1871	701,639	138,008	1871	304,153	13,227
1872	792,198	16,707	1872	358,531	11,707
1873	981,028	226,928	1873	200,545	5,437
1874	1,127,390	243,752	1874	243,400	27,640
1875	1,243 657	182,146	1875	305,844	56,023
1876	1.142,154	204,131	1876	233,960	3,101
1877	1,552,765	282,875	1877	210,257	4,479
1878	858.967	88,887	1878	145,413	10,756
1879	1,752,712	468,335	1879	253,802	29,253
1880	1,191,451	411,145	1880	143,366	5,372

BEANS AND POTATOES.

BEANS.			POTATOES.		
	Receipts, in sacks.	Exports, in sacks.		Receipts, in sacks.	Exports, in sacks.
1857	55,268	638	1857	343,681	.....
1858	65,076	6,721	1858	330,307	.....
1859	69,682	22,953	1859	292,458	.....
1860	38,714	8,300	1860	326,973	11,955
1861	34,188	4,675	1861	317,419	40,997
1862	58,294	11,789	1862	293,074	5,815
1863	59,620	2,863	1863	364,423	14,952
1864	83,568	21,619	1864	376,046	22,161
1865	47,822	4,244	1865	346,654	5,976
1866	45,717	6,662	1866	515,807	16,984
1867	50,678	2,921	1867	543,193	7,378
1868	50,638	12,917	1868	632,086	19,133
1869	53,711	1,899	1869	604,392	24,360
1870	99,585	7,890	1870	701,960	24,710
1871	85,618	21,800	1871	700,122	18 880
1872	56,390	7,479	1872	720 077	36,578
1873	70,048	5,997	1873	779,379	27,986
1874	89,091	5,739	1874	781,049	33,772
1875	113,577	8,156	1875	752,456	29,441
1876	115,128	17,296	1876	731,207	25,684
1877	117,860	10,512	1877	810,576	36,818
1878	80,116	12,705	1878	624,353	18,840
1879	207,193	17,871	1879	750,211	23,440
1880	198,249	28,740	1880	590,611	36,200

STATE LANDS AND HOW DIVIDED.

State Surveyor-General, William Minis, places the area of the State at 100,500,000 acres, divided as follows :—

Agricultural and mineral lands surveyed to June 30, 1879	40,054,114
Agricultural and mineral lands unsurveyed	39,065,754
Private grants surveyed to June 30, 1879	8,459,694
Mission Church property	40,707
Pueblo Lands	188,049
Private grants unsurveyed	15,000
Indian and military reservations	318,031
Lakes, islands, bays and navigable rivers	1,561.700
Swamp and overflowed lands unsurveyed	110,714
Salt marsh and tide lands around San Francisco bay	100,000
Salt marsh and tide lands around Humboldt bay	5,000
Aggregate	100,500,000

OWNERSHIP AND CULTIVATION OF LAND.

From various official sources we have compiled the subjoined table, showing the total area, the area sold by the Government (that is, held by private ownership), the area enclosed, and the area cultivated, in every county of the State—all in square miles. The figures are not exact, nor is it possible to make them so from any official records now in existence. The area "sold" is that treated as subject to taxation in the several counties, and the areas enclosed and cultivated are reported annually in the Assessor's reports.

In some cases, considerable quantities of land have been disposed of by the Federal Government, but in such a manner that they are not subject to taxation. Thus, the Southern Pacific Railroad Company has built 150 miles of its road in San Diego county, and is entitled to twenty square miles of land as subsidy for each mile of the road, making a total of 3,000 square miles; but this land has not yet been conveyed by patent, and nobody is authorized to say precisely which section will pass under the grant. The total areas, as given in the following table, are taken from calculations made by J. H. Wilde, Esq.

DIAGRAM SHOWING COMPARATIVE SIZE OF COUNTIES.

Prepared for Elliott & Moore's County History.

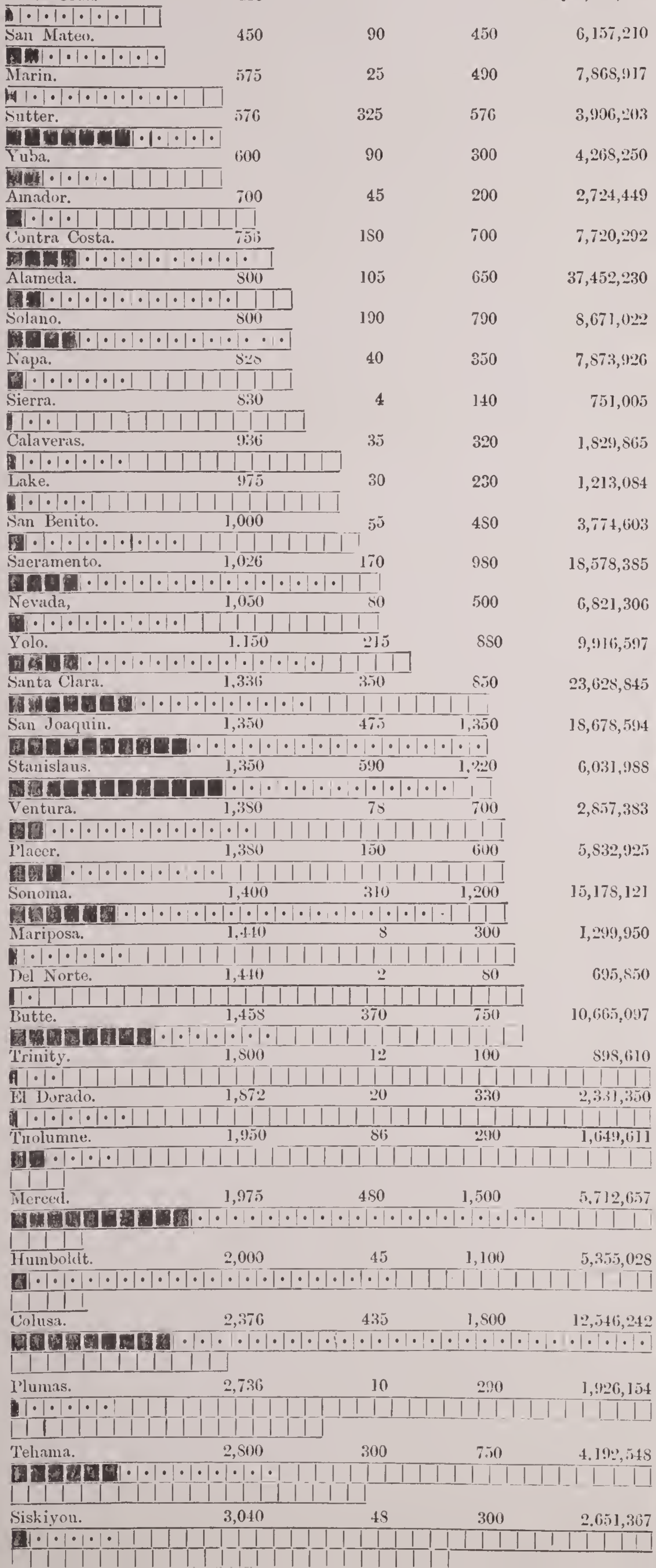
Arranged in square miles, each square represents 50 square miles land.

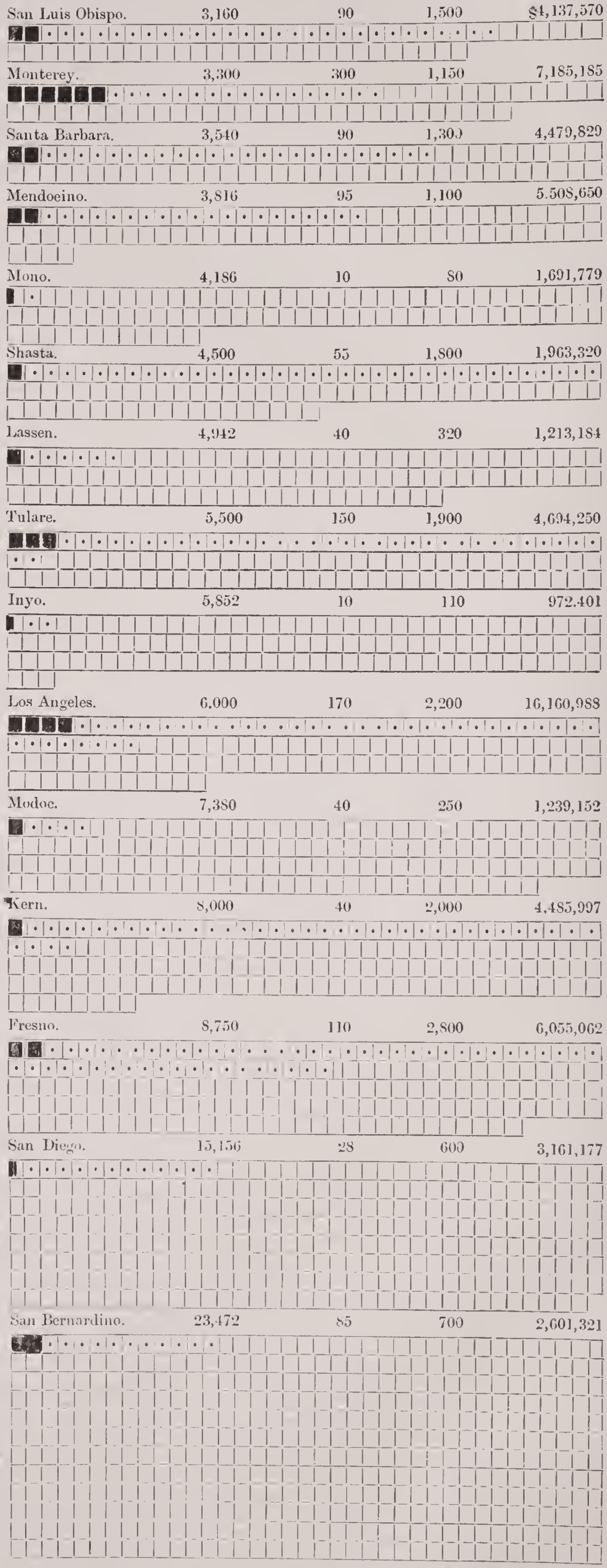
Each black ■ square represents 50 square miles cultivated, fractions omitted.

Each dotted ⊡ square represents 50 square miles sold but not cultivated.

Each open □ square represents 50 square miles unsold land, not assessed.

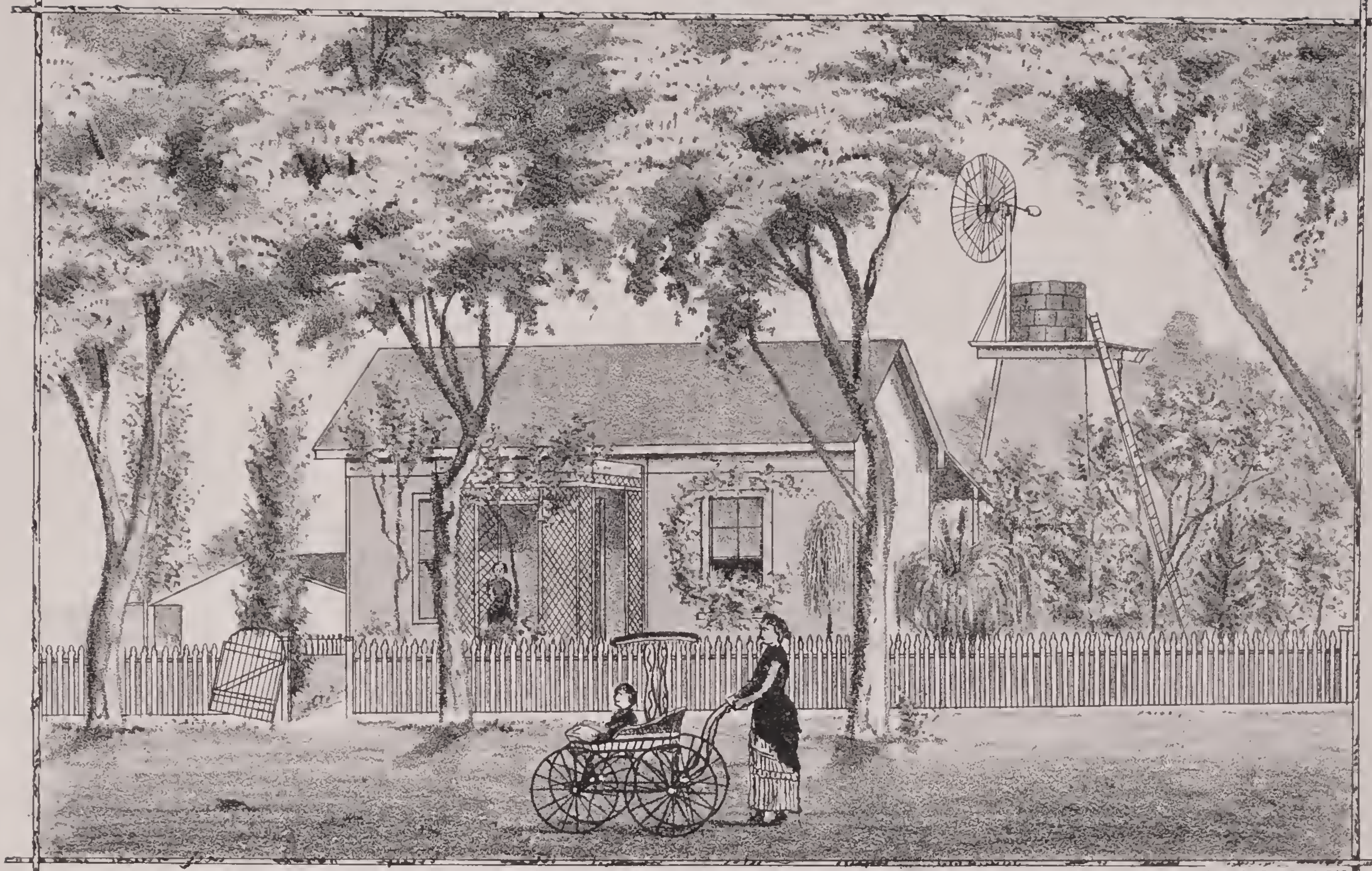
The areas in the table are not exact. The cultivated and assessed land and valuations are from Assessor's reports. About one twenty-fourth of the State is cultivated, and about one-fourth belongs to individuals.





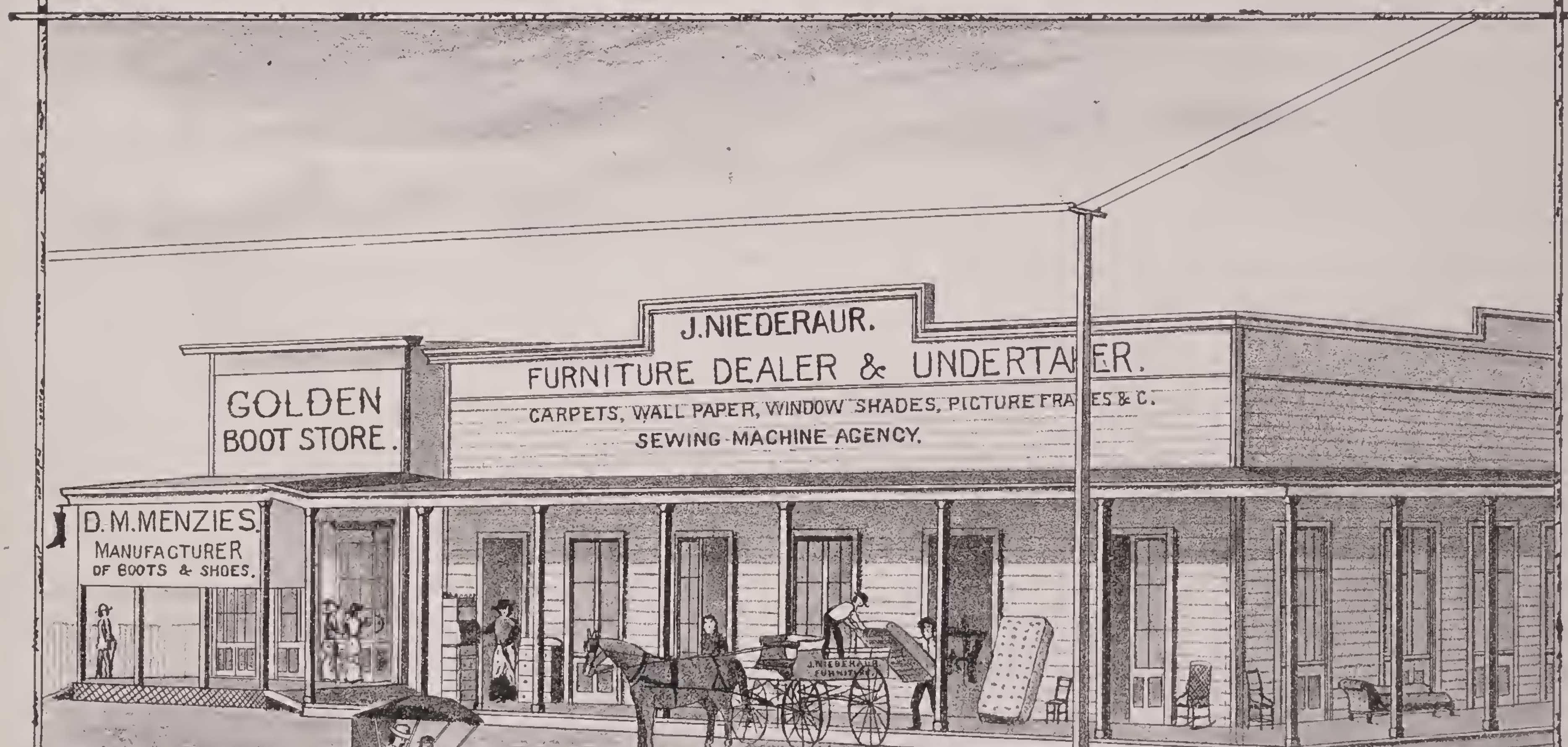
NAME.	AREA.	CULTIVATED.	SOLD.	VALUATION, Real and Personal.
Santa Cruz.	433	35	380	$ 5,616,553
San Mateo.	450	90	450	6,157,210
Marin.	575	25	490	7,868,917
Sutter.	576	325	576	3,906,203
Yuba.	600	90	300	4,268,250
Amador.	700	45	200	2,724,449
Contra Costa.	756	180	700	7,720,292
Alameda.	800	105	650	37,452,230
Solano.	800	190	790	8,671,022
Napa.	828	40	350	7,873,926
Sierra.	830	4	140	751,005
Calaveras.	936	35	320	1,829,865
Lake.	975	30	230	1,213,084
San Benito.	1,000	55	480	3,774,603
Sacramento.	1,026	170	980	18,578,385
Nevada,	1,050	80	500	6,821,306
Yolo.	1.150	215	880	9,916,597
Santa Clara.	1,336	350	850	23,628,845
San Joaquin.	1,350	475	1,350	18,678,594
Stanislaus.	1,350	590	1,220	6,031,988
Ventura.	1,380	78	700	2,857,383
Placer.	1,380	150	600	5,832,925
Sonoma.	1,400	310	1,200	15,178,121
Mariposa.	1,440	8	300	1,299,950
Del Norte.	1,440	2	80	695,850
Butte.	1,458	370	750	10,665,097
Trinity.	1,800	12	100	898,610
El Dorado.	1,872	20	330	2,331,350
Tuolumne.	1,950	86	290	1,649,611
Merced.	1,975	480	1,500	5,712,657
Humboldt.	2,000	45	1,100	5,355,028
Colusa.	2,376	435	1,800	12,546,242
Plumas.	2,736	10	290	1,926,154
Tehama.	2,800	300	750	4.192,548
Siskiyou.	3,040	48	300	2,651,367
San Luis Obispo.	3,160	90	1,500	$4,137,570
Monterey.	3,300	300	1,150	7,185,185
Santa Barbara.	3,540	90	1,300	4,479,829
Mendocino.	3,816	95	1,100	5.508,650
Mono.	4,186	10	80	1,691,779
Shasta.	4,500	55	1,800	1,963,320
Lassen.	4,942	40	320	1,213,184
Tulare.	5,500	150	1,900	4,694,250
Inyo.	5,852	10	110	972.401
Los Angeles.	6.000	170	2,200	16,160,988
Modoc.	7,380	40	250	1,239,152
Kern.	8,000	40	2,000	4,485,997
Fresno.	8,750	110	2,800	6,055,062
San Diego.	15,156	28	600	3,161,177
San Bernardino.	23,472	85	700	2,601,321
Total.	164,031	6,941	41,350	$578,839,214

By way of comparison, on same scale, to show the vast size of California, we represent the State of Rhode Island. 1,306 square miles.



RESIDENCE OF GEO. W. WEAR BAKERSFIELD, KERN CO. CAL.

ELLIOTT LITH. 421 MONT. ST.


J. NIEDERAUR.
FURNITURE DEALER & UNDERTAKER.
CARPETS, WALL PAPER, WINDOW SHADES, PICTURE FRAMES & C.
SEWING MACHINE AGENCY.
GOLDEN BOOT STORE.
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MANUFACTURER OF BOOTS & SHOES.
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EDUCATIONAL ADVANTAGES.

California has 2,743 public schools, with an attendance of 144,805, and 216,464 children on the census roll. In the year 1878–79 there was $2,285,732.38 paid to teachers as salaries. Since the organization of California as a State, she has paid for the support of schools $38,500,000—not a bad showing.

The educational system of the State has received much attention and care from those in authority. Our public schools and higher institutions of learning are liberally endowed, and generally efficient. The profession of teaching is held in high repute, and teachers command good salaries. We are justified, we think, in saying that the system of public schools established by the laws of California is in no respect inferior to the best in any other State in the Union.

FIRST YANKEE SCHOOL-MASTER.

In April, 1847, the first English school was opened in a small shanty on the block bounded by Dupont, Broadway, Pacific and Stockton Streets. Here were collected from twenty to thirty pupils, who then comprised nearly all the children of the city. It was a private institution and was supported by tuition fees from the pupils, and by the contributions of the citizens. It was taught by Mr. Marsten, who is entitled to the honor of being the first Yankee school-master upon the Pacific Coast. Although he continued his school but a few months, he performed an important part as a pioneer in establishing our schools, which should cause his name to be held in grateful remembrance by every friend of education.

THE PIONEER LADY TEACHER.

In January, 1848, Mrs. Mary A. Case located in Santa Cruz and opened a school in her own house, and taught two terms, when the discovery of gold broke up her school by the removal of families. Mrs. Case was, in 1879, still living in Santa Cruz. She was a native of Connecticut, and came to California in 1847. Her husband, B. A. Case, died at Long Valley, California, in 1871.

FIRST PUBLIC SCHOOL.

Late in the fall of 1847, active measures were first taken by the citizens of San Francisco to organize a public school, which resulted in erecting a humble one-story school-house on the south-west part of Portsmouth Square, fronting on Clay Street, near where it joins Brenham Place. An engraving of this first public school-house in San Francisco has been preserved in the "Annals of San Francisco." The history of this old building is cherished by the early pioneers with many pleasing associations. Here germinated every new enterprise; here the town meetings and political conventions were held; here the churches first held their gatherings, and the first public amusements were given. After the discovery of gold it was deserted for school purposes, and was used as a Court House under Judge Almond. It was afterwards degraded into a public office and used as a station-house. It was demolished by the city in 1850.

On the 3d of April, 1848, the school was opened in the building described, under the instruction of Mr. Thomas Douglass, now residing in San Jose, an able and zealous pioneer in the cause of education. He was appointed teacher by the Board of School Trustees, at a salary of $1,000 per month. The population at this time was 812, of whom sixty were children of a suitable age for attending school. Although it was a public school under the control of regularly elected officers, it was mainly supported by tuition from the pupils. The success and usefulness of this school were soon paralyzed by the great discovery of gold, which for a time depopulated the town, leaving the teacher minus pupils, trustees and salary. He therefore closed his school and joined in the general exodus for the mines, the new El Dorado of untold wealth.

In the general excitement and confusion which followed the first rush for the "diggings," the school enterprise was for a time abandoned. The education of the children, who were rapidly increasing from the flood of emigration pouring into San Francisco from every part of the world, was entirely neglected until the 23d of April, 1849, when the Rev. Albert Williams opened a school in his church.

In October, 1849, Mr. J. C. Pelton and wife opened a school in the basement of the Baptist Church, on Washington, near Stockton Street, and in July, 1850, the "Happy Valley School" was opened in a little dilapidated building, in what was then called "Happy Valley."

THE STATE UNIVERSITY.

This important institution is situated at Berkeley, Alameda County, and is endowed by the various gifts of Congress with Seminary, Building and Agricultural College lands; also with a State endowment from the sale of tide lands, which yields an annual income of $52,000. Its production fund is larger than that of the University of Michigan. It has an able corps of Professors and instructors, some of whom have a national reputation. The names of 336 students are upon its catalogue, distributed in the various departments of science and art. Its buildings and grounds are extensive, and for beauty of situation, or the thoroughness of its instruction in literature and science, it cannot be excelled. Its Medical Department is in the city of San Francisco. The University is free to both sexes.

The Normal School, at San Jose, is one of the most admirably managed of our State Institutions. It has an excellent faculty and over 400 students. An additional Normal School is about to be erected at Los Angeles.

California has, besides these State Institutions, fifteen colleges endowed or maintained by the different religious denominations.

DIMENSIONS OF CALIFORNIA.

Width on the north end, 216 miles; extreme extension from west to east, 352 miles; average width, about 235 miles; extension from north to south, 655 miles. A direct line from the northwest corner of the State to Fort Yuma, being the longest line in the State, is 830 miles; a direct line from San Francisco to Los Angeles, 342 miles; a direct line from San Francisco to San Diego, 451 miles. San Diego lies 350 miles south, and 285 miles east of San Francisco. Los Angeles lies 258 miles south, and 225 miles east of San Francisco. Cape Mendocino, the most westerly point in the State, is 96 miles west of San Francisco and 185 miles north.

California has an area of 164,981 square miles, or 100,947,840 acres, of which 80,000,000 acres are suited to some kind of profitable husbandry. It is four times greater in area than Cuba. It will make four States as large as New York, which has a population of nearly 5,000,000. It will make five States the size of Kentucky, which has a population of 1,321,000. It will make 24 States the size of Massachusetts, having a population of 1,500,000. It has an area of 144 times as great as Rhode Island. It is four-fifths the size of Austria, and nearly as large as France, each having a population of 36,000,000. It is nearly twice the size of Italy, with 27,000,000 inhabitants, and is one and one-half times greater than Great Britain and Ireland, having a population of 32,000,000. Its comparative size is best shown by the diagram on page 76.

California needs population—she is susceptible of sustaining millions where she now has thousands.

With industry, economy, sobriety, and honesty of purpose, no man in this State, with rare exceptions, will fail of success in the ordinary pursuits of life.

BAYS, HARBORS, ISLANDS, AND LAKES.

California has a sea-coast extending the whole length of the State, amounting, following the indentations, to somewhat over 700 miles. The principal bays and harbors, beginning on the south, are San Diego, Santa Barbara, San Luis Obispo, Monterey, San Francisco, Tomales, Bodega, Humboldt, Trinidad and Cresent City Bay.

San Francisco Bay, the most capacious and best protected harbor on the western coast of North America, is nearly fifty miles long (including its extension, San Pablo Bay,) and about nine miles wide. The entrance to the bay is through a strait about five miles long and a mile wide, and is named Chrysopylæ, or Golden Gate.

There are few lakes worthy of mention in California. The largest is Tulare, in the southern part of the State, which is very shoal. It is about thirty-three miles long by twenty-two wide, though in the wet season it covers a much larger area. Owens, Kern, and Buena Vista are much smaller lakes, in the same vicinity.

Lake Tahoe, in Placer County, thirteen hours from Sacramento by rail, is visited by the tourist, attracted by the wonders of the scenery, oftener than the invalid; has a pure mountain air, with a most charming summer climate, there being no excessive heat, and only an occasional and enjoyable thunder-storm. Here, besides the lake and the streams, are the waters of mountain springs and hot and cold mineral springs. There is trout fishing in the streams as well as in the lake, where a number of fish are taken—trout of several kinds, from a quarter of a pound to five pounds in weight, minnows, white fish, and several other sorts. Several of the beaches or bays of the lake are of interest, as Emerald and Carnelian Bays, carnelian stones being picked up that are very pretty. The lake is more than 6,000 feet above the level of the sea, and is twenty-two by twelve miles in size. Its greatest measured depth is something over 1,500 feet, and this great depth makes the principal wonder of the lake. The water is fresh, varying from thirty-nine to sixty degrees in temperature, and the extreme cold of the depth, which prevents drowned bodies from decomposing and rising to the surface, has given rise to the erroneous belief that the water is not buoyant, and will not float any object.

Donner Lake, near the scene of the Donner tragedy, is a small body of water much visited by tourists, situated near the eastern border of the State.

Lake Mono, fourteen miles long from east to west and nine miles wide, lies in Mono County, east of the Sierra Nevada. The water, being saturated with various mineral substances, the chief of which are salt, lime, borax, and carbonate of soda, is intensely bitter and saline, and of such high specific gravity that the human body floats in it very lightly. No living thing except the larvæ of a small fly and a small crustacean, inhabits this lake, which is sometimes called the Dead Sea of California.

The other lakes are: Clear, in Lake County, in the western part of the State, about ten miles long; and Klamath and Goose Lakes, lying partly in Oregon.

CHIEF NAVIGABLE STREAMS.

The Sacramento is about 370 miles long, and is navigable for large steamboats at all seasons to Sacramento, ninety miles from its mouth, or 120 miles from San Francisco, and for smaller craft to Red Bluff, 150 or 200 miles above Sacramento.

The San Joaquin, about 350 miles long, is navigable for ordinary steamers to Stockton, and for small craft during the rainy season to the mouth of the Tulare Slough, about 150 miles. The Calaveras, Stanislaus, Tuolumne, and Merced empty into the San Joaquin. Tule and swamp lands line the banks of the river. The soil is rich and needs only to be protected against high waters, to equal any in the State for production. The tules are a sort of tall rush, and in early times, fires swept over them as on a prairie. The effect is faintly indicated in our engraving on page 43

THE NATURAL WONDERS.

Among the many remarkable natural curiosities of California is the valley of the Yo Semite.

This far-famed valley is 140 miles east of San Francisco, and is a cañon a mile wide and eight miles long. The bottom of the valley is more than 4,000 feet above sea level, and the walls rise as high as 4,000 feet. Its principal water fall (though not the only one, nor the most beautiful), has 2,600 feet to fall. Great cliffs, rising 6,000 feet high, and gigantic dome-shaped mountains, are gathered in this narrow valley, which are supposed to have been formed suddenly one day by a fissure, or crack, in the solid mountain chain. The valley scenery is of great beauty, and the summer climate is cool, with snow in winter. People camping in tents have an inclosure in Yo Semite set apart for them, and may also locate themselves in other parts of the valley, always under the stated regulations, which provide that fire-wood may be picked up, but never cut down; that fires must not be left burning; that fish may be taken with hook and line only, and that birds must not be killed. In the valley are three hotels, three stores, four livery stables, a blacksmith, a cabinetmaker, four photographers, a saloon, a bathing house, three carpenters and four laundries.

The Big Trees of Mariposa, only one of several interesting groups in the State, are sixteen miles from Yo Semite. The tallest tree in this grove is 325 feet high, and the thickest is twenty-seven feet through. The age of the oldest one, which has been counted by rings, is, 1,300 years old, its seed having taken root in this California valley, in the sixth century after Christ, when the world's history (so called) was confined to that narrow strip of land along the Mediterranean Sea, with the barbarous nations on its borders. These trees are of the *Sequoia Gigantea*, and only the *Eucalyptus Amygdalena* of Australia ever grows so large.

The Geysers are also remarkable natural phenomena. There is a collection of hot sulphur springs, more than 300 in number, covering about 200 acres, in a deep gorge, in the northeast part of Sonoma County. They are about 1,700 feet above the sea, and are surrounded by mountains from 3,000 to 4,000 feet high. Hot and cold, quiet and boiling springs are found within a few feet of each other.

There are five natural bridges in California. The largest is on a small creek emptying into the Hay Fork of Trinity River. It is eighty feet long, with its top 170 feet above the water. In Siskiyou County there are two, about thirty feet apart, ninety feet long; and there are two more on Coyote Creek, in Tuolumne County, the larger 285 feet long.

The most noted caves are the Alabaster Cave in Placer County, containing two chambers, the larger 200 feet long by 100 feet wide; the Bower Cave in Mariposa County, having a chamber about 100 feet square, reached by an entrance seventy feet long.

The most recently discovered of the great natural wonders of the State is the petrified forest, about seventy-five miles north of San Francisco, the existence of which was first made public in 1870.

TIMBER FORESTS.

California is noted for its large forests of excellent timber, and for trees of mammoth size. The sides of the Sierra Nevada, to the height of 2,500 feet, are covered with oaks, manzanita and nut pine and above this, to a height of 8,000 feet, with dense forests of pine, fir, cypress, hemlock, and other coniferous trees.

Dense forests of redwood exist on the coast north of latitude thirty-seven degrees, chiefly in Humboldt County. This timber is used for fence posts, railroad ties, and furnishes lumber for all building purposes. It answers the same for house material in California as Wisconsin and Michigan pine does in the Mississippi Valley. There is a large amount of timber of the various species named in the mountains and valleys in the northern part of the State, from the Sierra Nevada Range to the ocean.

The redwood, bearing a strong resemblance to the mammoth, frequently grows to a height of 300 feet, and a diameter of fifteen feet. These forests are fully described in the local history of the County.

White and live oak abound in large quantities on the west slope of the Coast Range, and in the intervening valleys south of latitude 37°, in the counties of Monterey, San Luis Obispo, and Santa Barbara. This wood is chiefly used for fuel and is of little value for building or fencing purposes.

A great part of the Sacramento and San Joaquin Valleys, the Colorado Basin, the east slope of the Coast Mountains, and the Coast Range south of Point Conception, are treeless.

The sugar pine is a large tree, and one of the most graceful of evergreens. It grows about 200 feet high and twelve feet in diameter. This wood grows in the Sierra Nevada, is free-splitting and valuable for timber. The yellow pine and white cedar are all large trees, growing more than 200 feet high and six or eight feet in diameter.

The story is told of two men who were engaged in the cutting of one of these immense trees into logs, with a cross-cut saw. After they had sawed themselves out of sight of each other, one of them became impressed with the belief that the saw was not running as easily as it ought, when he crawled on top of the tree to remonstrate with his partner, whom he discovered to be fast asleep.

The visitor to California has not seen it all until he has spent a week in the deep recesses of a redwood forest. It is then, standing beside the towering monarch of the forest, that a man will realize his utter insignificance, and how inestimably ephemeral he is compared with many other of God's handiworks. He looks upon a tree that stood when Christ was yet in his youth, the circles of whose growth but mark the cycles of time almost since the first man was, and on whose tablets might have been written the records of the mighty men of old.

POPULATION AND ITS INCREASE.

In 1831, the entire population of the State was estimated at 23,025, of whom 18,683 were Indian converts. During the years 1843, '44, '45 and '46 a great many emigrants from the United Stated settled in California. In January, 1847, the white population was estimated at from 12,000 to 15,000. Its population in 1850 was probably 150,000. The population of the State in 1880 was 858,864. There are, on the average, six inhabitants to the square mile, but the distribution of the settlement over the State is unequal. Thus, San Francisco has about 8,000 people to the square mile, while those portions of San Diego and San Bernardino Counties in the Colorado Desert and inclosed basin, with an area of 14,000 square miles, have at least seven square miles to each white inhabitant. The counties of San Francisco, San Mateo, Santa Clara, Contra Costa, San Joaquin, Sacramento, Yolo, Solano, Napa, Sonoma, and Marin, fronting on San Francisco, San Pablo, and Suisun Bays, and the deltas of the Sacramento and San Joaquin Rivers, all within thirty miles of Mount Diablo, and distinctly visible from its summit, have 580,800 inhabitants, or about fifty-eight to the mile, leaving a little more than two to the square mile for the remainder of the State.

TABLE OF VOTES CAST BY CALIFORNIA AT ALL THE PRESIDENTIAL ELECTIONS.

DATE.	NAME OF CANDIDATES.	NO. OF VOTES.	MAJORITY.
1852	Scott and Graham	35,407	
"	Pierce and King	40,626	5,219
"	Hale and Julian	100	
	Total	76,133	
1856	Fremont and Dayton	20,691	
"	Buchanan and Breckinridge	53,365	17,200
"	Fillmore and Donelson	36,165	
	Total	110,221	
1860	Lincoln and Hamlin	38,734	711
"	Breckenridge and Lane	38,023	
"	Douglass and Johnson	33,975	
"	Bell and Everett	9,136	
	Total	119,868	
1864	Lincoln and Johnson	62,134	13,273
"	McClellan and Pendleton	48,841	
	Total	110,975	
1868	Grant and Colfax	54,583	506
"	Seymour and Blair	54,077	
	Total	108,660	
1872	Grant and Wilson	54,020	3,302
"	Greeley and Brown	40,718	
	Total	94,738	
1876	Hayes and Wheeler	79,308	2,842
"	Tilden and Hendricks	76,466	
	Cooper	47	
	Total	155,821	
1880	Garfield and Arthur	80,267	
"	Hancock and English	80,332	65
	Weaver	3,381	
	Total	163,980	

For 1880, it is the average vote on elections. One Republican elector was elected and five of the Democratic electors, and the vote was cast accordingly.

CENSUS OF THE STATE BY COUNTIES*

SINCE ITS ORGANIZATION.

	COUNTIES	1850.	1860.	1870.	1880.	Increase in ten years.
1	Alameda	----- --	8,927	24,237	63,639	39,402
2	Alpine (*a*)	-- ----	-- ----	685	539	dec 146
3	Amador	----- --	10,930	9,582	11.386	1,804
4	Butte	3,574	12.106	11,403	18,721	7,308
5	Calaveras	16,884	16,299	8,895	8,980	85
6	Colusa	115	2,274	6,165	13,118	6,953
7	Contra Costa	----- --	5,328	8,461	12,525	4,044
8	Del Norte	----- --	1,993	2.022	2,499	628
9	El Dorado	20,057	20,562	10.309	10,647	338
10	Fresno	--------	4,605	6,336	9.478	3,142
11	Humboldt	--------	2,694	6,140	15.515	9,375
12	Inyo (*b*)	--------	----- --	1,956	2,928	477
13	Kern (*b*)	--------	----- --	2,925	5,600	2,675
14	Klamath (*i*)	--------	1,803	1,686	----- --	----- --
15	Lake (*c*)	--------	----- --	2.969	6,643	3,674
16	Lassen (*d*)	--------	----- --	1.327	3,341	2.014
17	Los Angeles	3.530	11.333	15.309	33,392	18,083
18	Marin	323	3,334	6.903	11,326	4,423
19	Mariposa	4,379	6.243	4,572	4,399	dec.173
20	Mendocino (*e*)	55	3,967	7,545	11.000	3,455
21	Merced	--------	1,141	2.807	5,657	2.850
22	Mono (*f*)	--------	----- --	430	5,416	5,013
23	Monterey	1,872	4,739	9,876	11,309	1,433
24	Modoc (*j*)	--------	----- --	----- --	4.700	4.760
25	Napa (*c*)	405	5,521	7,163	12,894	5,713
26	Nevada	--------	16,446	19.134	20.534	1,400
27	Placer	--------	13,270	11,357	14,278	2,921
28	Plumas (*d*)	--------	4,363	4.489	6.881	2,392
29	Sacramento	9,087	24,142	26,830	36.200	9,370
30	San Benito (*k*)	--------	----- --	----- --	5.584	5,584
31	San Bernardino	--------	5,551	3,988	7,800	3,812
32	San Diego	--------	4,324	4,951	8,620	3,669
33	San Francisco (*g*)	--------	56,802	149,473	233,956	84,483
34	San Joaquin (*h*)	3,647	9,435	21,050	24,323	3,273
35	San Luis Obispo	336	1,782	4,772	8,142	3,370
36	San Mateo (*g*)	--------	3,214	6.635	8,717	2,082
37	Santa Barbara	1,185	3,543	7,784	9,478	1,694
38	Santa Clara	--------	11,912	26.246	35,113	8,864
39	Santa Cruz	643	4,944	8,743	12,808	4,605
40	Shasta (*d*)	378	4,360	4,173	9,700	5,527
41	Sierra	--------	11,387	5,619	6.617	998
42	Siskiyou	--------	7,629	6,648	8,401	1,553
43	Solano	580	7,169	16.871	18.475	1,604
44	Sonoma	560	11.867	19,819	25.925	6.106
45	Stanislaus (*h*)	--------	2,245	6,499	8,951	2,452
46	Sutter	3,444	3,390	5,030	5,212	182
47	Tehama	--------	4.044	3.587	9,414	5,827
48	Trinity	1,635	5,125	3,213	4,982	1,769
49	Tulare	--------	4.638	4,533	11.281	6,748
50	Tuolumne (*h*)	8,351	16,229	8,150	7.843	dec 307
51	Ventura (*j*)	--------	----- --	----- --	5,088	5,088
52	Yolo	1,086	4,716	9,899	11,880	1,981
53	Yuba	9.673	13.668	10,851	11,540	689
Total . . 52	The State	92,597	379.994	560,247	864,686	304.439
	White	91.635	323,177	499,424	767.266	267,842
	Colored	962	4,086	4,272	6.265	1.993
	Chinese	----- --	34,933	49,310	75,025	25.715
	Indians	----- --	17,908	7,241	16,130	8,889

The returns of 1850 for Contra Costa and Santa Clara were lost on the way to the Census Office, and those for San Francisco were destroyed by fire. The corrected State census of 1852 gives the population of these three counties as follows: Contra Costa, 2,786; San Francisco, 36,154; and Santa Clara, 6,764: and gives the total population of the State (save El Dorado, not returned) 215,122. El Dorado was estimated at 40,000, which would make the total population at that date 255,122. (*Vide* Doc. No. 14. Appendix to Senate Journal, 4th session Legislature.)

(*a*) In 1863 Alpine from Amador, Calaveras, El Dorado, and Mono.

(*b*) In 1865 organized.

(*c*) In 1861 Lake from Napa.

(*d*) In 1863 Lassen from Plumas and Shasta.

(*e*) In 1860 organized.

(*f*) In 1863 organized.

(*g*) In 1857 San Mateo from San Francisco.

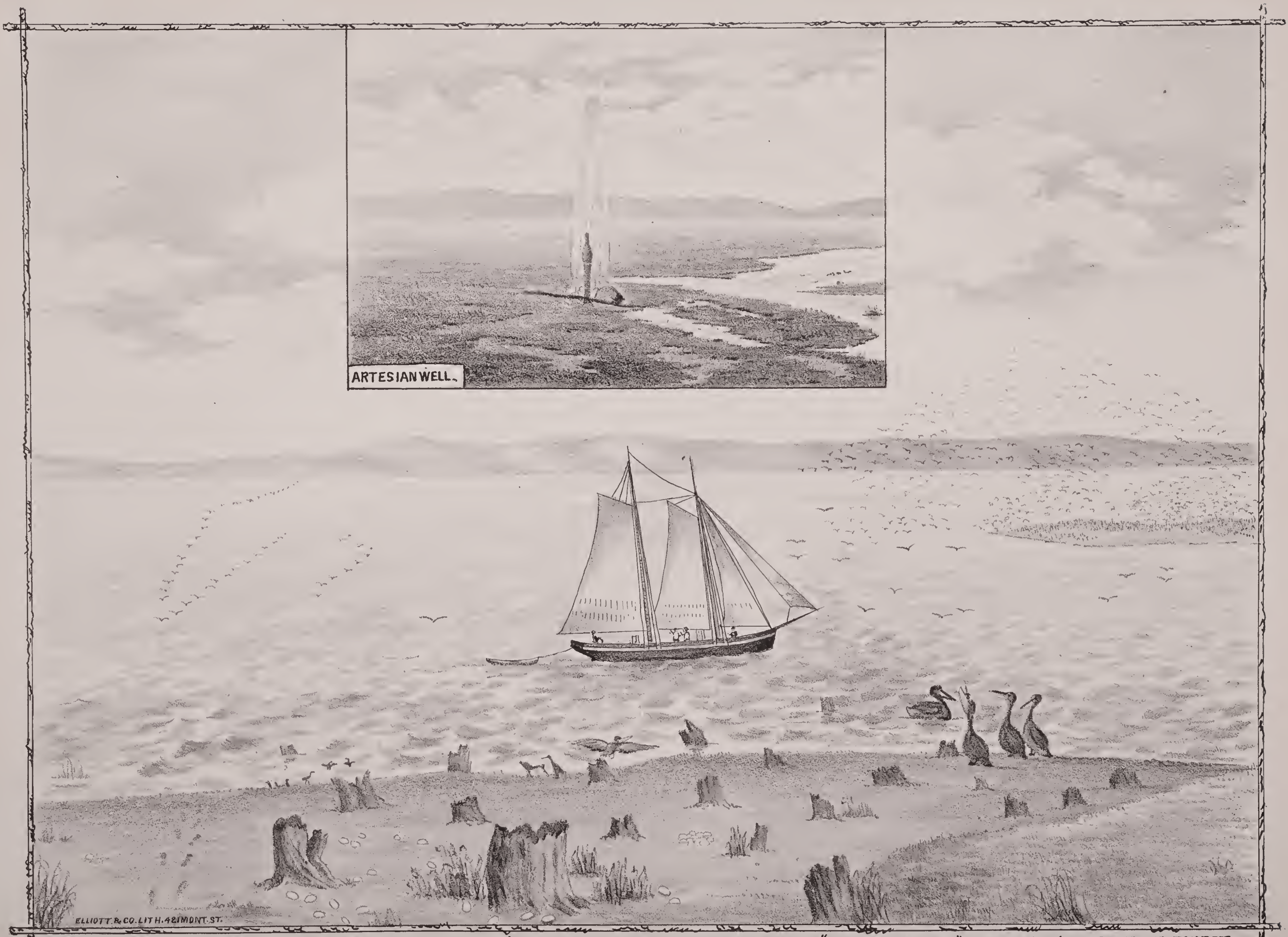
(*h*) In 1854 Stanislaus from San Joaquin and Tuolumne.

(*i*) Divided and attached to other counties.

(*j*) Organized 1873.

(*k*) Organized in 1872 from Monterey.

*The census of 1880 gives males, 518,271; females, 346 415; native, 572,006; foreign, 92,680.


ARTESIAN WELL.
ELLIOTT & CO. LITH. 421 MONT. ST.

NORTH END OF TULARE LAKE, AT MOUTH OF KING'S RIVER. LAST VOYAGE OF THE "WATER WITCH". STUMPS OF SUBMERGED FOREST.

HISTORY

—OF—

TULARE COUNTY, CALIFORNIA,

FROM THE EARLY DAYS DOWN TO THE PRESENT TIME.

WHEN the State was first formed into counties, the whole country extending from the Tuolumne River on the north to Walker's Pass on the south and from Nevada line on the east to the Coast Range on the west, was divided into two counties, Mariposa and Tulare. From this territory has since been formed Mariposa, Mono, Inyo, Merced, Fresno, Tulare, and Kern.

This portion of the San Joaquin Valley, until about the year 1835, was almost a *terra incognita*, having been visited by the trappers only, as already stated. At about that time an expedition into this part of the valley was undertaken by Lieutenant Moraga, of the Mexican army, then stationed at the presidio of San Francisco, who, in command of a company of soldiers, pursued some Indians who had been committing depredations upon the settlers in the coast valleys, into the valley of the San Joaquin.

This expedition was undertaken in June. Lieutenant Moraga and his companions crossed the San Joaquin near the mouth of the Tuolumne River, and traveled thence in a southeasterly direction to the Merced River, a distance of about forty miles, the whole of which had to be accomplished without water. The weather being very hot, it is no wonder they called the river, in whose limpid waters they slaked their burning thirst and laved their throbbing temples, *El Rio de la Merced*, the river of mercy.

They continued the journey, naming rivers and streams, until after visiting King's River the expedition returned over the mountains to the west.

FIRST AMERICANS IN SAN JOAQUIN VALLEY.

The first Americans who arrived in California, overland, according to an article in the *Pioneer*, were under the command of Jedediah Smith, of New York. He accompanied the first trapping and trading expedition sent from St. Louis to the head-waters of the Missouri by General Ashley, an account of which is given on a preceding page.

In the spring of 1826, Mr. Smith, at the head of a party of about twenty-five men, left the winter quarters of the company to make a spring and fall hunt. He crossed the mountains and descended into the great valley of California near its southeastern extremity; thus being not only the first American, but the first person who, from the east, or north, had entered the magnificent valleys of the San Joaquin and Sacramento, or who had ever seen or explored any of the rivers falling into the bay of San Francisco.

FIRST HUNTERS ON TULARE LAKE.

The fur traders doubtless trapped the beaver on the San Joaquin River and its tributaries many years ago, that valuable fur-bearing animal being abundant at the time. We have it from old settlers that these hunters were trapping in California when the country was first explored by the missionary fathers. As stated on page 39, Stephen Hall Meek spent the winter of 1833 hunting about Tulare Lake.

The trappers were extremely reticent with reference to the countries in which they followed their vocation. They gave no information that would lead to the settlement of their trapping grounds. They were jealous of those who were seeking information with respect to new countries suitable for agriculture and stock-raising, and, generally, entertained a supreme contempt for them. It is, then, not a matter of surprise that the first settlers could get from the trappers neither a written nor a verbal description of the San Joaquin River, its tributaries, or the valley through which they flow. Had the missionary fathers known the extent and resources of the valley, the vast area of grazing lands, affording the finest quality of pasturage, the extensive tracts of agricultural lands which have since become so valuable, they or their companions would have secured the greater portion of it as grants from the Mexican Government, as they did the greater portion of the coast valleys of California.

FIRST SETTLERS KEPT NEAR THE COAST.

The settlers on the coast and in the San Jose Valley seldom or never ventured east of the summit of the Monte Diablo Range of mountains. In very dry seasons, when grass became scarce, and when thousands of cattle and horses were likely to perish for lack of food, the rancheros would drive some of their cattle and horses to the top of the Monte Diablo Range and turn them loose; but they never followed them up or gave any further attention to them; hence the large number of wild stock found roaming over the plains at the time the immigration of Americans to this State began.

The reason the stock was never sought after seems to have been the fear of Indians, a popular belief having obtained among the settlers of the San Jose, Sonoma, and other coast valleys, that there existed a powerful and warlike tribe of Indians in the San Joaquin Valley.

FIRST PERMANENT SETTLERS.

Capt. C. M. Weber, the founder of Stockton, was one of the first to locate permanently in the valley, although he had been preceded by Dr. John Marsh, whose occupation and settlement is described on page 43.

Weber was induced to come by the glowing accounts given by Dr. Marsh in his published letters heretofore noticed. This was in 1841, before the trip (to be mentioned) of Fremont.

In August, 1844, David Kelsey, with his wife and two children, a boy and a girl, settled at French Camp and built a tule house. Mr. Gulnac, who was stopping at the Cosumnes River, had offered to give Mr. Kelsey a mile square of land if he would stop at that place, and live one year; he turned over to him the "swivel" that Sutter had given him. Every night Mr. Kelsey threw this piece of ordnance "into battery," and fired an evening gun, which he did to frighten the Indians, on the same principle that a boy sometimes whistles as he is going through the woods after dark. At that time there was only one other house in the county, also constructed of tule, occupied by Thomas Lindsay, at Stockton.

Mr. Kelsey remained for several months at that place, and after his family had been obliged to live for two months on boiled wheat, meat, milk, and mint tea, gathered along the bank of the creek, he buried the swivel and removed temporarily to San Jose, where he first saw Captain Weber.

Numerous others began to locate in the next few years. The discovery of gold in 1848 brought a grand rush of people into the valley on their way to the mines. No one had the slightest idea of the San Joaquin Valley ever being, as it now is, a pre-eminently agricultural country. The rolling prairies and grassy meadows were overrun with cattle and stock—thousands of head. No idea of any other industry but grazing was then thought of in the vast valley, except in a limited way along the rivers by a few who were believers in its agricultural resources.

FREMONT VISITS THE VALLEY.

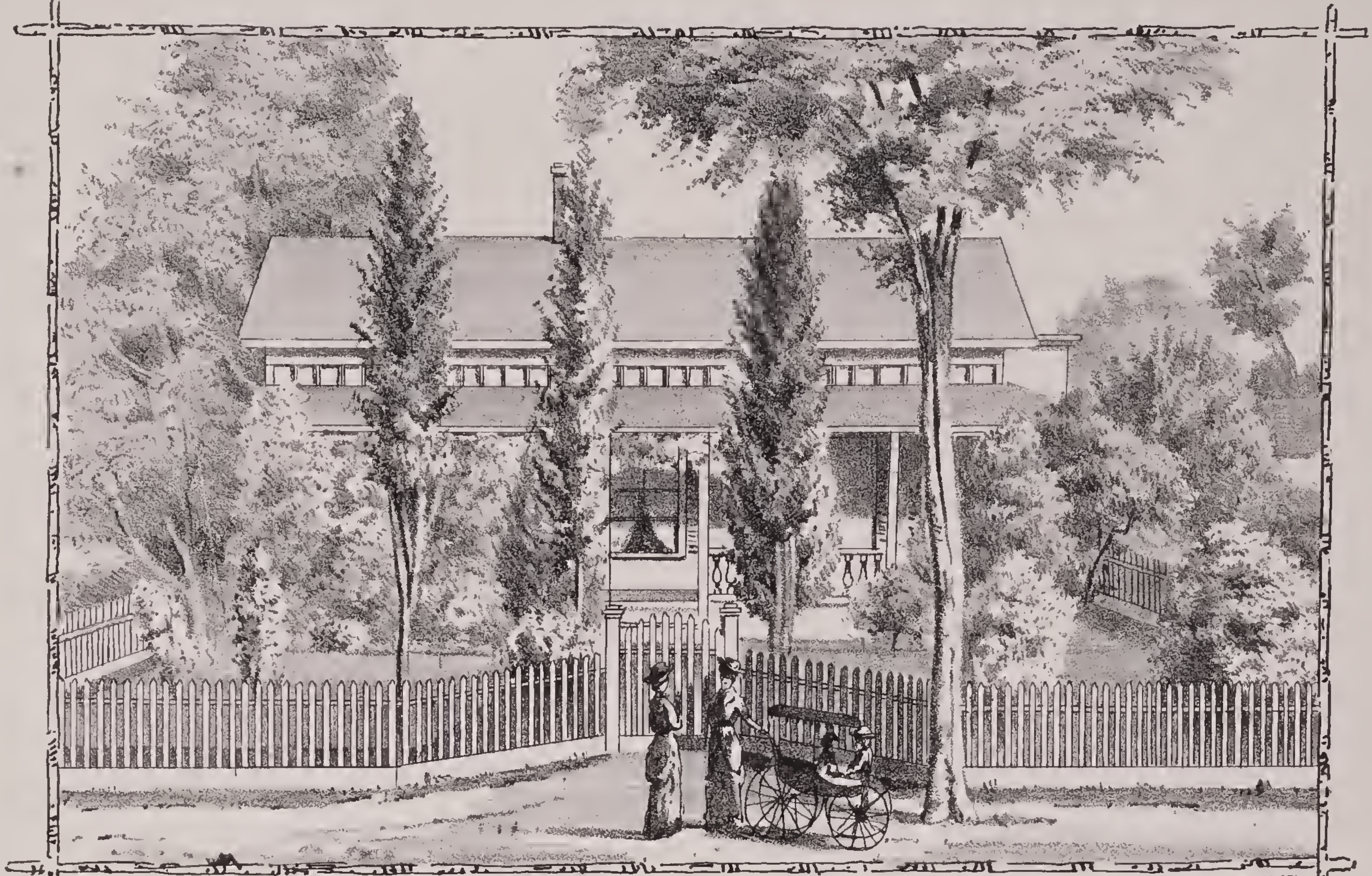
General Fremont's expedition in April, 1844, having as guides Kit Carson and Alexis Godey, who still lives at Bakersfield and whose residence makes one of our best illustrations, passed up the San Joaquin River, which he describes after passing the mouth of the Merced, as follows:—

"On the prairie bordering the San Joaquin bottoms, there occurred during the day but little grass, and in its place was a sparse and dwarf growth of plants; the soil being sandy, with small bare places and hillocks, reminded me much of the Platte bottoms; but, on approaching the timber, we found more luxuriant vegetation, and at our camp was an abundance of grass and pea-vines.

"The foliage of the oak is getting darker; and everything, except that the weather is a little cool, shows that spring is rapidly advancing; and to-day we had quite a summer rain. It commenced to rain at daylight, but cleared off brightly at sunrise. We ferried the river without any difficulty and continued up the San Joaquin. Elk were running in bands over the prairie and in the skirts of the timber. We reached the river at the mouth of a large slough, which we were unable to ford, and made a circuit of several miles around. Here the country appears very flat; oak trees have entirely disappeared, and are replaced by a large willow, nearly equal to it in size. The river is about a hundred yards in breadth, branching into sloughs and interspersed with islands. At this time it appears sufficiently deep for a small steamer, but its navigation would be broken by shallows at low water. Bearing in toward the river, we were again forced off by another slough; and, passing around, steered toward a clump of trees on the river, and, finding there good grass, encamped. The prairies along the left bank are alive with immense droves of wild horses; and they had been seen during the day at every opening through the woods which afforded us a view across the river. Latitude, by observation, 37° 08′; longitude, 120° 45′ 22″.

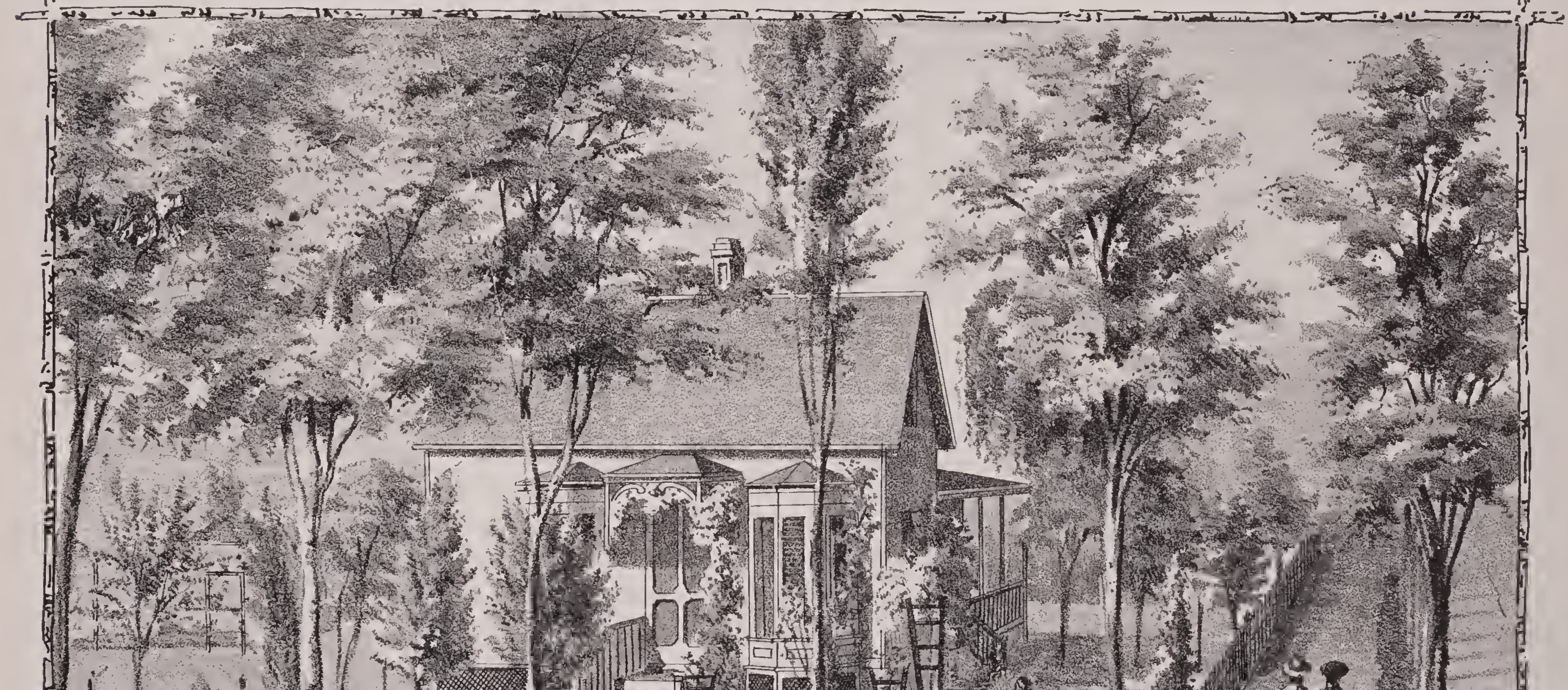
FREMONT DESCRIBES THE TULE LAKES.

"April 5th.—During the early part of the day's ride, the country presented a lacustrine appearance; the river was deep, and nearly on a level with the surrounding country; its banks raised like a levee, and fringed with willows. Over the bordering plain were interspersed spots of prairie among fields of *tule* (bullrushes), which in this country are called *tulares*, and little ponds. On the opposite side a line of timber was visible, which, according to information, points out the course of the slough, which at times of high water connects with San Joaquin River a large body of water in the upper part of the valley,



ELLIOTT. LITH. 421 MONT. ST

HOME OF J. E. DENNY, COR. OAK & CHURCH STS. VISALIA, TULARE CO. CALIFORNIA.



ELLIOTT LITH 421 MONT. ST

RES. OF L. A. PRATT. COR. TULARE & H STS. TULARE CITY, CAL.

called the Tule Lakes. The river and all its sloughs are very full, and it is probable that the lake is now discharging. Here elk were frequently started, and one was shot out of a band which run around us. On our left, the Sierra maintains its snowy height and masses of snow appear to descend very low toward the plains; probably the late rains in the valley were snow on the mountains. We traveled thirty-seven miles and encamped on the river. Longitude of the camp, 120° 28′ 34″, and latitude 36° 49′ 12″.

"6th.—After having traveled fifteen miles along the river, we made an early halt, under the shade of sycamore trees. Here we found the San Joaquin coming down from the Sierra with a westerly course, and checking our way as all its tributaries had previously done.

DROVES OF WILD HORSES.

"We had expected to raft the river, but found a good ford, and encamped on the opposite bank, where droves of wild horses were raising clouds of dust on the prairie. Columns of smoke were visible in the direction of the Tule Lakes to the southward—probably kindled in the tulares by the Indians as signals that there were strangers in the valley.

"April 7th.—We had a hard march in a cold, chilly rain, the weather so thick we traveled by compass. We saw wolves frequently during the day prowling about after the young antelope, which cannot run very fast. Antelope were numerous and many were caught by our people. Late in the afternoon we discovered timber, which was found to be groves of oak trees on a dry *arroyo*. The rain, which had fallen in frequent showers, poured down in a storm at sunset, with a strong wind, which swept off the clouds, and left a clear sky. Riding on through the timber, about dark we found abundant water in small ponds, twenty to thirty yards in diameter, with clear deep water and sandy beds bordered with bog rushes (*juncus effusus*), and a tall rush (*scirpus lacustris*) twelve feet high, and surrounded near the margin with willow trees in bloom; among them one which resembled *salix myricoides*. The oak of the groves was the same already mentioned, with small leaves, in form like those of the white oak, and forming, with the evergreen oak, the characteristic trees of the valley.

KING'S RIVER NAMED.

"8th—After a ride of two miles through brush and open groves, we reached a large stream, called the River of the Lake (King's River), resembling in size the San Joaquin, and being about 100 yards broad. This is the principle tributary to the Tule Lakes, which collects all the water in the upper part of the valley.

INDIANS OF TULARE VALLEY.

"While we were searching for a ford, some Indians appeared on the opposite bank, and having discovered that we were not Spanish soldiers, showed us the way to a good ford several miles above.

"The Indians of the Sierra make frequent descents upon the settlements west of the Coast Range, which they keep constantly swept of horses; among them are many who are called Christian Indians, being refugees from Spanish missions. Several of these incursions occurred while we were at Helvetia. Occasionally parties of soldiers follow them across the Coast Range, but never enter the Sierra.

"On the opposite side we found some forty or fifty Indians, who had come to meet us from the village below. We made them some small presents, and invited them to our encampment, which, after about three miles through fine oak groves, we made on the river. We made a fort, principally on account of our animals. The Indians brought otter-skins, and several kinds of fish, and bread made of acorns to trade. Among them were several who had come to live among these Indians when the missions were broken up, and who spoke Spanish fluently. They informed us that they were called by the Spaniards *mansitos* (tame), in distinction from the wilder tribes of the mountains. They, however, think themselves very insecure, not knowing at what unforeseen moment the sins of the latter may be visited upon them. They are dark-skinned, but handsome and intelligent Indians, and live principally on acorns and the roots of the tule, of which also their huts are made.

"By observation, the latitude of the encampment is 36° 24′ 50″, and longitude 119° 41′ 40″.

"9th.—For several miles we had very bad traveling over what is called rotten ground, in which the horses were frequently up to their knees. Making toward a line of timber we found a small fordable stream, beyond which the country improved, and the grass became excellent; and crossing a number of dry and timbered *arroyos*, we traveled until late through open oak groves, and encamped among a collection of streams. These were running among rushes and willows; and, as usual, flocks of blackbirds announced our approach to water. We have here approached considerably nearer to the eastern Sierra, which shows very plainly, still covered with masses of snow, which yesterday and to-day has also appeared abundant on the Coast Range.

"10th—To-day we made another long journey of about forty miles, through a country uninteresting and flat, with very little grass and a sandy soil, in which several branches we crossed had lost their water. In the evening the face of the country became hilly; and, turning a few miles up toward the mountains, we found a good encampment on a pretty stream hidden among the hills, and handsomely timbered, principally with large cottonwoods (*populus*, differing from any in Michaux's Sylva). The seed-vessels of this tree were now just about bursting.

"Several Indians came down the river to see us in the evening; we gave them supper, and cautioned them against stealing our horses, which they promised not to attempt.

THE FOOT-HILL PASS.

"11th—A broad trail along the river here takes out among the hills. *Buen camino* (good road), said one of the Indians, of whom we had inquired about the pass; and, following it accordingly, it conducted us beautifully through a very broken country, by an excellent way, which, otherwise, we should have found extremely bad. Taking separately, the hills present smooth and graceful outlines, but, together, make bad traveling ground. Instead of grass, the whole face of the country is closely covered with *erodium cicutarium*, here only two or three inches high. Its height and beauty varied in a remarkable manner with the locality, being, in many low places which we passed during the day, around streams and springs, two and three feet high. The country had now assumed a character of aridity, and the luxuriant green of these little streams, wooded with willow, oak, or sycamore, looked very refreshing among the sandy hills.

"In the evening we encamped by a large creek, with abundant water. I noticed here in bloom, for the first time since leaving the Arkansas waters, the *Miribilis Jalapa.*

"12th—Along our road to-day the country was altogether sandy and vegetation meager. *Ephedra occidentalis*, which we had first seen in the neighborhood of the Pyramid Lake, made its appearance here, and in the course of the day became very abundant and in large bushes. Toward the close of the afternoon, we reached a tolerably large river, which empties into a small lake at the head of the valley; it is about thirty-five yards wide, with a stony and gravelly bed, and the swiftest stream we have crossed since leaving the bay. The bottoms produced no grass, though well timbered with willow and cottonwood; and, after ascending several miles, we made a late encampment on a little bottom, with scanty grass. In greater part, the vegetation along our road consisted now of rare and unusual plants, among which many were entirely new.

"Along the bottoms were thickets consisting of several varieties of shrubs, which made here their first appearance; and among these was *Garrya elliptica* (Lindley), a small tree belonging to a very peculiar natural order, and, in its general appearance (growing in thickets), resembling willow. It now became common along the streams, frequently supplying the place of *salix longifolia.*

"13th—The water was low, and a few miles above we forded the river at a rapid, and marched in a southeasterly direction over a less broken country. The mountains were now very near, occasionally looming out through fog. In a few hours we reached the bottom of a creek without water, over which the sandy beds were dispersed in many branches. Immediately where we struck it, the timber terminated; and below, to the right, it was a broad bed of dry and bare sands. There were many tracks of Indians and horses imprinted in the sand, which, with other indications, informed us was the creek issuing from the pass, and which we have called Pass Creek. We ascended a trail for a few miles along the creek, and suddenly found a stream of water five feet wide, running with a lively current, but losing itself almost immediately. This little stream showed plainly the manner in which the mountain waters lose themselves in sand at the eastern foot of the Sierra, leaving only a parched desert and arid plains beyond. The stream enlarged rapidly, and the timber became abundant as we ascended.

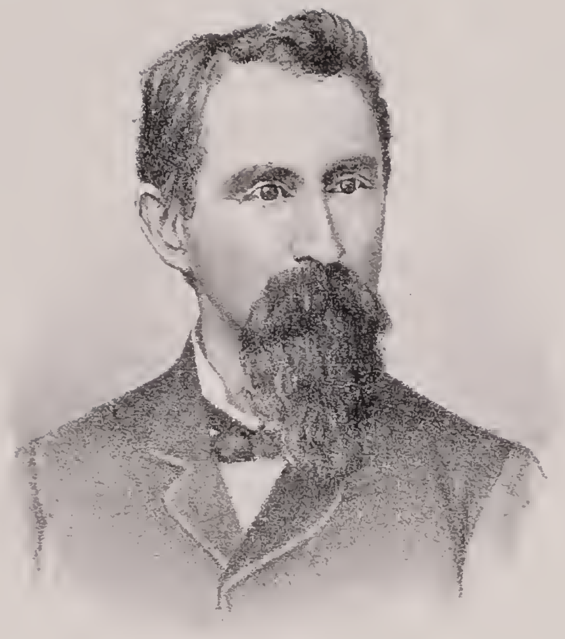
"A new species of pine made its appearance, with several kinds of oaks, and a variety of trees; and the country changing its appearance suddenly and entirely, we found ourselves again traveling among the old orchard-like places. Here we selected a delightful encampment in a handsome green oak hollow, where among the open bolls of the trees was an abundant sward of grass and pea-vines.

UNEXPECTED MEETING.

"In the evening a Christian Indian rode into the camp, well dressed, with long spurs, and a *sombrero*, and speaking Spanish fluently. It was an unexpected apparition, and a strange and pleasant sight in this desolate gorge of a mountain—an Indian face, Spanish costume, jingling spurs, and horse equipped after the Spanish manner. He informed me that he belonged to one of the Spanish missions to the south, distant two or three days' ride, and that he had obtained from the priests leave to spend a few days with his relations in the Sierra. Having seen us enter the pass, he had come down to visit us. He appeared familiarly acquainted with the country, and gave me definite and clear information in regard to the desert region east of the mountains.

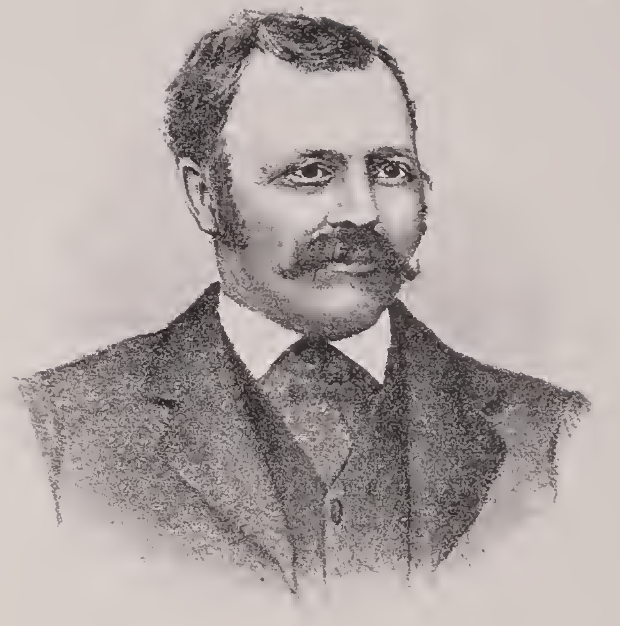
FREMONT ENTERS THE PASS.

"I had entered the pass with a strong disposition to vary my route, and to travel directly across toward the Great Salt Lake, in the view of obtaining some acquaintance with the interior of the Great Basin, while pursuing a direct course for the frontier; but his representation, which described it as an arid and barren desert, that had repulsed by its sterility all the attempts of the Indians to penetrate it, determined me for the present to relinquish the plan, and, agreeable to his advice, after crossing the Sierra, continued our intended route along its eastern base to the Spanish trail. By this route, a party of six Indians, who had come from a great river in the eastern part of the desert to trade with his people, had just started on their return. He would himself return the next day to San Fernando and as our roads would be the same for two days, he offered his services to conduct us so far on our way. His offer was gladly accepted. The fog, which had somewhat interfered with views in the valley, had entirely passed off and left a clear sky. That which had enveloped us in the neighborhood of the pass proceeded evidently from fires kindled



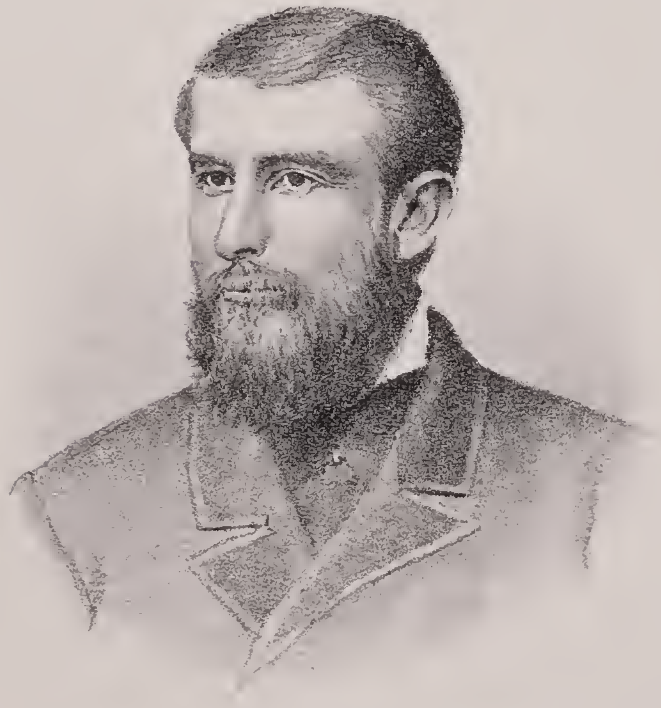
CLERK.

Launcelot Fitzroy



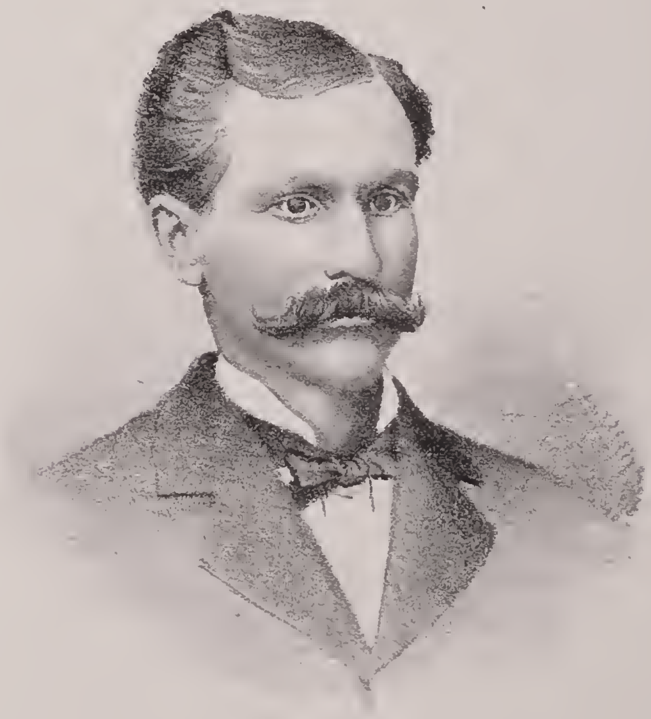
SURVEYOR.

Thos Creighton



AUDITOR.

Jno F. Jordan



ASSESSOR.

Seth Smith

among the tulares by Indians living near the lakes, and which were intended to warn those in the mountains that there were strangers in the valley. Our position was in latitude 35° 17′ 12″, and longitude 118° 35′ 03″.

"14th—Our guide joined us this morning on the trail; and, arriving in a short distance at an open bottom where the creek forked, we continued up the right-hand branch, which was enriched by a profusion of flowers, and handsomely wooded with sycamore, oaks, cottonwood, and willow, with other trees, and some shrubby plants. In its long strings of balls, this sycamore differs from that of the United States, and is the *platanus occidentalus* of Hooker—a new species recently described among the plants collected in the voyage of the *Sulphur*. The cottonwood varied its foliage with white tufts, and the feathery seeds were flying plentifully through the air. Gooseberries, nearly ripe, were very abundant in the mountains; and as we passed the dividing grounds, which were not very easy to ascertain, the air was filled with perfume, as if we were entering a highly cultivated garden; and, instead of green, our pathway and the mountain-sides were covered with fields of yellow flowers, which here was the prevailing color.

A SCENE OF BEAUTY.

Our journey to-day was in the midst of an advanced spring, whose green and floral beauty offered a delightful contrast to the sandy valley we had just left. All the day, snow was in sight on the butte of the mountain, which frowned down upon us on the right; but we beheld it now with feelings of pleasant security, as we rode along between green trees, and on flowers, with humming-birds and other feathered friends of the traveler enlivening the serene spring air. As we reached the summit of this beautiful pass, and obtained a view into the eastern country, we saw at once that here was the place to take leave of all such pleasant scenes as those around us. The distant mountains were now bald rocks again, and below the land had any color but green. Taking into consideration the nature of the Sierra Nevada, we found this pass an excellent one for horses; and, with a little labor, or perhaps with a more perfect examination of the localities, it might be made sufficiently practicable for wagons. Its latitude and longitude may be considered that of our last encampment, only a few miles distant. The elevation was not taken—our half-wild cavalcade making it troublesome to halt before night, when once started.

FREMONT'S CAVALCADE DESCRIBED.

"Our cavalcade made a strange and grotesque appearance; and it was impossible to avoid reflecting upon our position and composition in this remote solitude. Within two degrees of the Pacific Ocean—already far south of the latitude of Monterey—and still forced on south by a desert on one hand, and a mountain range on the other, guided by a civilized Indian, attended by two wild ones from the Sierra, a Chinook from the Columbia, and our mixture of American, French, German, all armed, four or five languages heard at once, about a hundred horses and mules, half wild, American, Spanish, and Indian dresses and equipments intermingled, such was our composition. Our march was a sort of procession. Scouts ahead and on the flanks; a front and rear division; the pack-animals, baggage, and horned cattle in the centre; and the whole stretching a quarter of a mile along our dreary path. In this form we journeyed, looking more as if we belonged to Asia than to the United States of America."

The Great Interior Basin.

"THAT portion of the great interior basin of California which has received the designation of the Tulare Valley, including Fresno, Tulare, and Kern Valleys, lies between the Sierra Nevada and Coast Range Mountains, which come together as the Tejon and Tehachepi Mountains, about the thirty-fifth degree of north latitude, from its southernmost limit. The general direction of this valley is nearly parallel with the trend of the coast, northwest and southeast, from which its central axis is from 75 to 100 miles distant. Its greatest length is 260 miles, and in width it varies from 30 to 70 miles. Its total area is 11,290 square miles."

THE PLAINS AND BASINS.

The valley consists of two plains of unequal width, extending from the foot-hills of the mountains, and meeting in a trough, not midway, but considerably west of the center line of the great depression. This trough, running from one end of the valley to the other, has a general inclination in a northwesterly direction toward the outlet for all drainage waters of the great basin, Suisun Bay. Its slope is not uniform, but flattens out at intervals where lakes and marshes exist, as the streams flowing in on either side have banked up the silt and detritus, washed from the mountains at special points for ages past. In this manner, Kern River, sweeping down enormous volumes of decomposed granite, has spread out a broad barrier across the valley, inclosing a basin above it for the reception of the waters forming Kern and Buena Vista Lakes, at the southern extremity of the trough; and King's River, carrying its load of sand and silt to the lowest part of the valley, has raised a dam across the depression, and completed the shallow basin, where now exists Tulare Lake, one of the greatest sheets of fresh water in California.

THE TROUGH OF THE VALLEY.

It is probable that this trough once held the bed of a continuous stream from Kern River, extending throughout the length of the valley and receiving the tributaries flowing in on either hand. As it is, the depression serves as the drainage-way for all the valley, however impeded may be its course. From Kern and Buena Vista Lakes, which occupy the same level in the lowest depression of the southern end, and are at an elevation of about 293 feet above low tide, it slopes at the rate of about two feet per mile for 42 miles to Tulare Lake, whose elevation is 198 to 210 feet, according to the stage of its waters. Thence to the mouth of Fresno Slough, at the great bend of the San Joaquin, 55 miles from the lake, the slope is .86 feet per mile.

The total fall from this point to the mouth of the San Joaquin River, a distance of 120 miles, is 165 feet.

UNFAILING WATER SUPPLY.

The lofty mountains in which the perennial streams rise, store away the precipitation of the annual rainy season in the form of snow which melts slowly throughout the summer, and never wholly disappears, giving down a steady and unfailing supply, its greatest volumes gauged to that season when most required for watering the thirsty plains below, namely in the late spring and early summer months. The others are intermittent in flow, and not sufficient for purposes of irrigation.

The streams on the western side, discharging from the Coast Range, are all of the most intermittent character. The mountain-sides are steep and almost devoid of forests, which might hold back the waters of precipitation. The land is consequently rapidly drained, and the streams are in flood for but a short period after each rain. They descend upon the plains in channels, which in most instances are lost before reaching the central trough, the waters of many of them spreading at will over the high, sloping valley lands adjacent to the mountains, and seldom reach the river. As sources of supply for irrigation they are therefore unreliable, and at best available for but a limited area in the vicinity of their several points of entrance upon the valley.

ORIGIN OF THE NAME OF SAN JOAQUIN.

From the report of Gen. M. G. Vallejo to the State Senate, in 1852, on the "Origin of the Names of Counties in this State," we find the following:—

"SAN JOAQUIN.—The meaning of this name has a very ancient origin in reference to the parentage of Mary, the mother of Christ. According to divine revelations, Joachim signifies 'preparation of the Lord,' and hence the belief that Joaquin, who in the course of time was admitted into the pale of sanctity, was the father of Mary. In 1813, commanding an exploring expedition to the valley of the rushes (*valles de los tulares*), Lieut. Gabriel Moraga gave the appellation of San Joaquin to a rivulet that springs from the Sierra Nevada, and empties into Lake Buena Vista. The river San Joaquin derives its name from the rivulet, and baptizes the county with the same."

THE VALLEY IN ITS NATIVE STATE.

There began to settle in this vast valley, in 1848–49, that intrepid band of pioneers who had scaled the Sierra, or sailed "around the Horn." At length the promised land was gained. The valleys were an interminable grain-field, mile upon mile and acre after acre, wild oats grew in marvelous profusion, in many places to a prodigious height—one great, glorious green of wild, waving corn—high over head of the wayfarer on foot, and shoulder-high to the equestrian; wild flowers of every prismatic shade charmed the eye, while they vied with each other in the gorgeousness of their colors, and blended into dazzling splendor. One breath of wind, and the wide emerald expanse rippled itself into space, while with a heavier breeze came a swell whose rolling waves beat against the mountain-sides, and, being hurled back, were lost in the far-away horizon; shadow pursued shadow in a long, merry chase. The air was filled with the hum of bees, the chirrup of birds, and an overpowering fragrance from the various plants weighted the air. The hill-sides, overrun as they were with a dense mass of tangled jungle, were hard to penetrate, while in some portions the deep, dark gloom of the forest trees lent relief to the eye.

The almost boundless range was intersected throughout with divergent trails, whereby the traveler moved from point to point, progress being as it were in darkness on account of the height of the oats on either side, and rendered dangerous in the valleys by the bands of untamed cattle, sprung from the stock introduced by the mission fathers. These found food and shelter on the plains during the night; at dawn they repaired to the higher grounds to chew the cud and bask in the sunshine. At every yard coyotes sprang from beneath the feet. The flight of quail and other birds, the nimble run of the rabbit, and the stampede of the elk and antelope, which abounded in thousands, added to the charm.

The chief riches of the early California pioneer consisted of cattle and mines of gold. Mining was the chief industry, and stock-raising received great attention. Over the richest soil in the county roamed large herds of cattle, horses, and sheep; but in the course of time, as population increased, the country watered by the San Joaquin, Kern, and King's Rivers was found to be most fertile and productive. The dwellers of these valleys engaged in tilling the soil, and the dwellers of the hilly parts of the Coast Range and Sierra Nevada, which are better adapted to grazing, became the owners of herds of cattle and sheep.

AN IMMENSE TERRITORY.

We find by examining Gibbs' map of California, printed in 1851, that the north boundary of Mariposa was the 38th parallel on the east side of the Sierra, which corresponds nearly with the north line of Mono, as now organized, and included Mono Lake. The line extended down the Sierra to the head-waters of the Tuolumne, and thence followed that river westerly to the San Joaquin and on to the Coast Range. It followed the Coast Range to a point opposite the mouth of King's River, and thence followed King's River to the Sierra and to the Nevada line.

COUNTY BOUNDARIES.

At this time Tulare County extended south from the King's River line just mentioned to a point which is now the southwest corner of Kern County.

The population of this large territory was, by the census of 1850, 4,379. Out of this territory was formed Merced County, in 1855, with the county seat at the "Ranch of Turner & Osborn," on Mariposa Creek, about eight miles from Merced. Lieut. Gov. Samuel Purdy was at that time President of the Senate, and W. W. Stow, Speaker of the House. Mariposa County was represented in the Senate by Major A. McNeill, and by E Burke and Thos. Flournoy, in the Assembly. In 1856, Fresno County was formed from the territory, and in 1863 Mono County was organized; Kern and Inyo in 1866.

The broad plains and beautiful rivers of the section had attracted many Mexican rancheros, who with their fatted herds enjoyed the greatest freedom; and who exhibited in person a royal hospitality toward the wayfarer, often furnishing guides and horses, at the command of a stranger, for many days' journey, with the only injunction, *"Cuando vuelva no dye de venier a verme."*

Later the mining interest predominated, only for a brief period, however, as the husbandman's plow no sooner turned the soil than a bountiful yield gladdened the hearts of the many households whose habitations began to deck the plains, and in a few years hamlets and villages took the place of lowing herds.

FIRST SETTLERS IN TULARE COUNTY.

Tulare County reached on the north to King's River. Amongst the foremost settlers at Upper King's River were Mr. Poole, who established the first ferry across that river; Wm. Y. Scott, the second Sheriff of Fresno County, and after whom the settlement once known as Scottsburg was named; Wm. W. Hill, the Smoot family, the Akers family, P W Fink, John A. Patterson, A. M. Darwin, E. C. Ferguson, Wm. Hazleton, C. F. Cherry, Wm. C. Caldwell, Jesse Morrow, now proprietor of the popular "Morrow House," in Fresno, Richard and Wm. Glenn, Wm. Deakin, and others. They all engaged in agriculture and the raising of all kinds of stock, and in a few years after the first settlers had located there, the settlement became the largest in the county, and for a few years held in its hand the balance of power, politically; and any candidate for office who could secure a fair majority at the King's River Precinct, considered himself sure of his election.

CHARACTER OF EARLY SETTLERS.

They were good, old-fashioned people, who cared very little for politics, or the outside world: they stayed at home, tilled their farms, raised stock, made money, and were contented and happy; and while they formed the largest settlement in the county, its history is stained with less crime or deeds of violence than many smaller communities. Polling a large vote, during every canvass that settlement was fairly besieged by importuning candidates. The good people would listen to them all, but promise none, but would look for advice to one or two of the most prominent men in the settlement, and cast their votes accordingly, caring but very little which candidate was elected or defeated.

A few early settlers of King's River, now Centerville, are still left, and residing there and doing well, for instance: Wm. Hazleton, C. F. Cherry, P. W. Fink, Wm. Deakin, Wm. Glenn, and last but not least, old Gabriel Moore, the darkey, who has contributed more toward the fun and amusement of those people than any other man in the settlement.

FIRST FERRY ON KING'S RIVER.

In about 1854, Whitmore established the first ferry at Lower King's River, at a place where the town of Kingston now stands; it was for a long time known as Whitmore's Ferry. Subsequently, Whitmore was killed, and the property passed into the hands of O. H. Bliss, who maintained the ferry for several years, but afterwards discontinued the ferry and built a substantial bridge across the river. Bliss sold out in 1873 and removed to Los Angeles, and all his fine property was sold to John Sutherland, Sr.

FORT MILLER ESTABLISHED.

In the beginning of April, 1851, a military fort was established on the south bank of the San Joaquin, about a mile above the town of Millerton. It was called Fort Barbour, in honor of one of the commanders. It was soon after changed to Millerton. Here the Indian treaty was signed.

Fort Miller was established under General Miller. The name of Rootville, by which the mining camp, situated about a mile below the fort was designated, was changed to Millerton, in honor of General Miller. At the fort everything went on swimmingly; the men were a good lot of boys, and the officers were gentlemen. Captain Jordan was quartermaster. He was shrewd, cunning, and crafty, and always kept his weather-eye open for the main chance—in fact, he was for Jordan, first, last, and all the time.

FIRST DAM ON THE SAN JOAQUIN.

In 1853 Jordan began constructing a dam across the San Joaquin River, just opposite the fort, and dug a ditch on the south bank of the river, for mining purposes; the remains of both dam and ditch can be seen to-day. On this work a great number of hands and teams were employed, but the undertaking proved a failure, at least to those who were employed to do the work; some lost all their earnings, others one-half, and all lost more or less, and no one came out ahead except Jordan.

IMMENSE HAY STACK.

But cunning and shrewd as he was, he was check-mated by one John Newton. Newton had foresight enough to see that a large quantity of hay and grain would be required during the coming winter, to feed all the animals kept at the fort. Jordan entered into a contract with Newton, agreeing to take all the hay Newton could furnish, at $50.00 per ton, Jordan to haul the hay to the fort himself. Some distance east of Jerry Brown's old place (now Hildreth's), there stands an immense rock; here Newton went to work in the spring, cutting hay, and after having cut and cured about ten tons, he covered the rock with the hay, and when completed, the pile presented the appearance of an immense hay-stack. Newton, Jordan, and some of his men, went to measure and inspect the stack, which Jordan accepted at fifty tons. They then went back to the fort, where Newton obtained his money for fifty tons of hay, and decamped. Shortly afterwards, Jordan ordered his teamsters to haul in that hay; but the first load that was taken off the pile laid bare the fraud and a portion of the rock. What Jordan said on discovering the swindle cannot be recorded here; suffice it to say that he did not pray with great devotion, but perhaps in a humiliated spirit; but there was no remedy.

KERN RIVER GOLD EXCITEMENT.

Few old settlers can have forgotten the Kern River excitement, which for a time threatened to depopulate the northern part of the State. Stages from Marysville and Sacramento were crowded day after day, and new lines were established from Los Angeles, Stockton, San Jose, and various other points; but such was the pressure of travel in search of this grand depository, in which it was represented the main wealth of the world had been treasured by a beneficent Providence, that thousands were compelled to go on foot, and carry their blankets and provisions on their backs. From Stockton to the mining district, a distance of more than 300 miles, the plains of the San Joaquin were literally speckled with "honest miners." It is a notable fact that of those who went in stages, the majority returned on foot; and of those who trusted originally to shoe-leather, many had to walk back on their natural soles, or depend on sackcloth or charity.

The Kern River excitement was one of those periodical visitations of a mild species of insanity, with which the people of California seem to have been afflicted from time to time, ever since the early days. It originated out of vague reports of gold in the gulches of the Kern River country, and in the course of a few months all the avenues leading to the region were crowded with adventurers. Miners passed daily on their way thither; but it was not long before they began returning, disappointed in their anticipations of sudden wealth, and deeply cursing the infatuation which had induced them to go so far with so little profit.

FATE OF A PIONEER OF 1837.

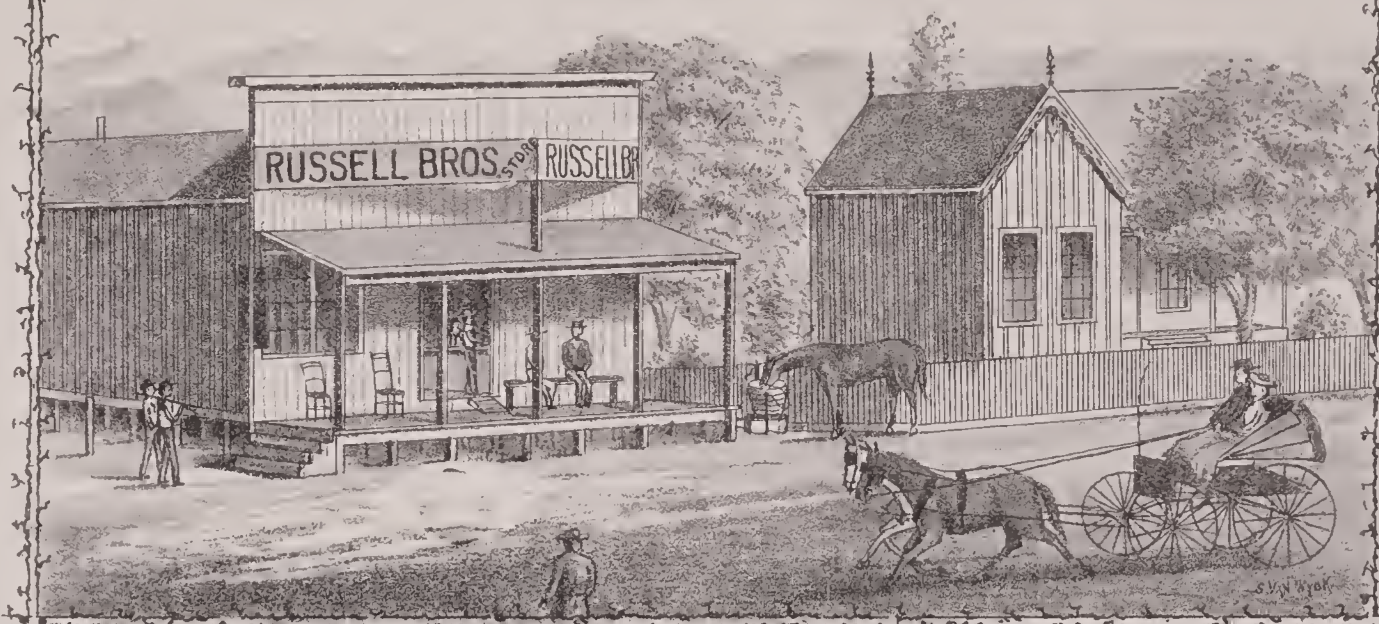
At the time of the discovery of gold, and for several years afterward, very little was known of the Tulare Valley, except the western side and the vicinity of the lakes. This part was occasionally visited by native Californians from Monterey, San Luis Obispo and Santa Barbara Counties for the purpose of hunting wild horses which then abounded, but they could give very little information in regard to the eastern side or the mountains in the vicinity. They represented it as filled with hostile Indians and of a forbidding aspect. But it is probable it was more familiar to the hunters and trappers of the great plains and the skirts of the Rocky Mountains who, it is well known, often penetrated into California, impelled by the desire to look on the Pacific, and the vanity of having it in their power to say they had traveled to the extreme western verge of the continent.

A memorial of a visit of a party of these adventurous men may still be seen in the pass where the old abandoned military post of Fort Tejon is situated—one deeply and painfully suggestive of the dangers to which they were subject and the tragical fate that often overtook them. On an oak tree, about thirty inches in diameter, standing on the verge of the parade ground, may be seen, now nearly grown over by the bark, through which the letters can still be distinctly traced, the following inscription, neatly cut in capital letters, as follows:—

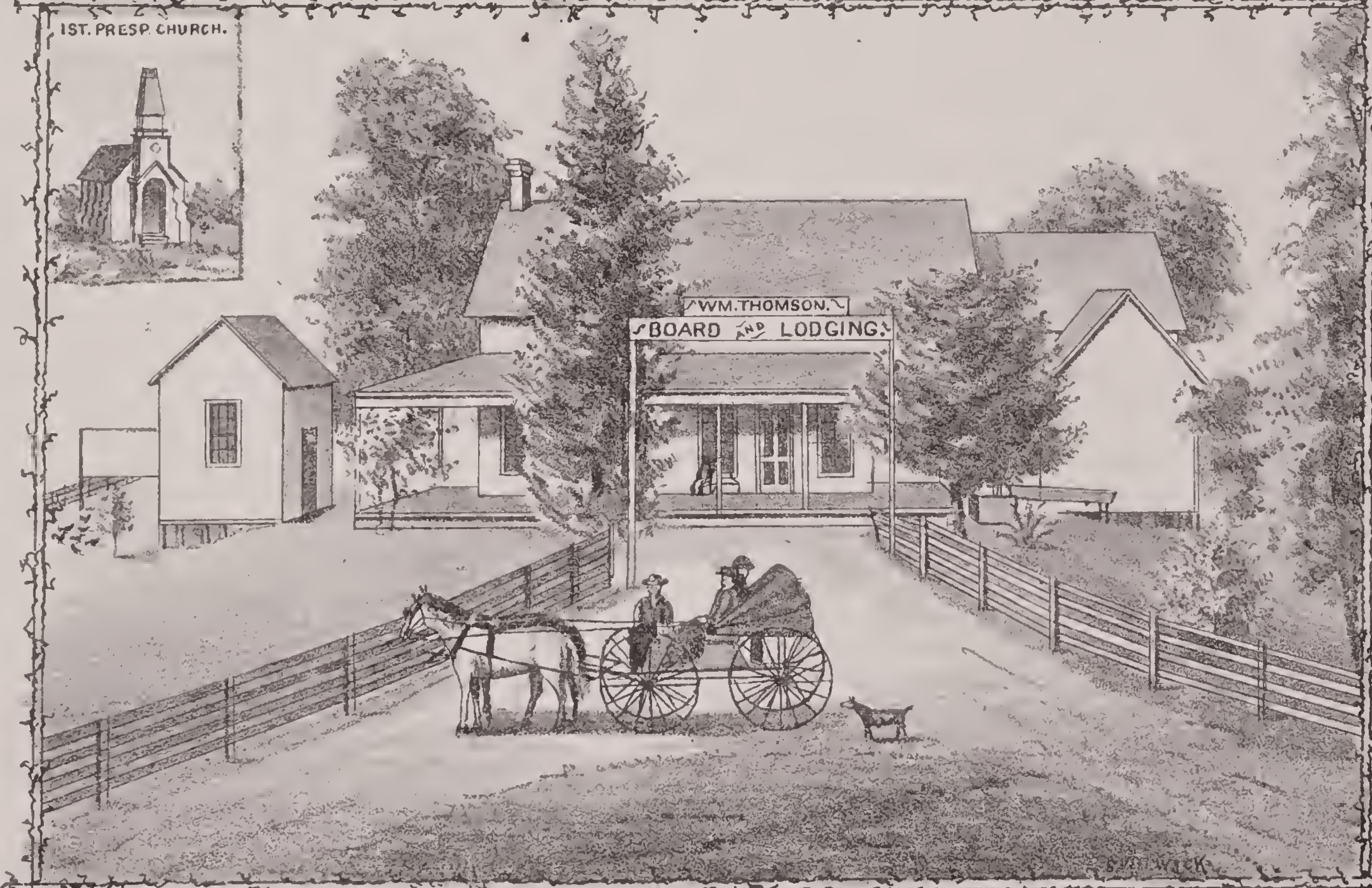
I H S
PETER
LEBECK
KILLED
BY
A † BEAR
OCT 17 1837

At the time these words were carved the tree was probably not more than half the size it now is, and the man whose fate is commemorated was probably buried at its foot. It is an object of melancholy interest to visitors to this pleasant resort. It is known far and wide as one of the objects to be seen, and is generally sought out, pondered over, and commented upon. But of the hundreds who have seen it, many of them old pioneers and mountain men, not one has been able to throw the least light on the terrible tragedy here enacted in this then remote and fearful solitude, the mere fact of which is given in these, the fewest words possible.

It was first seen, we believe, by a citizen of Los Angeles County in 1842, five years after the date of the occurrence, and twelve years before the first buildings were erected for the use of the post, and there can be no doubt of its authenticity. The locality was always known in early days as a favorite resort of grizzly bears, as it abounds both there and in the vicinity with the food upon which they principally subsist. Although, of late years, their numbers have greatly diminished, so has not their ferocity, and they are yet often met with.


RUSSELL BROS.
STORE
RUSSELL BR
S.V.N. WYCK

STORE OF RUSSELL BROS. MAIN ST. PLANO CAL. ESTABLISHED IN 1881.


1ST. PRESB. CHURCH.
WM. THOMSON.
BOARD AND LODGING.

THOMSON'S BOARDING-HOUSE. WM. T. THOMSON. PROP. PLANO. TULARE CO. CAL.

NOTED EARLY SETTLER.

One of the most noted early settlers of this section was James D. Savage,* who, in the year 1850, kept a trading-post on the Fresno River, then in Mariposa County, some distance above what is at present known as Leach's old store, and on Christmas night of that year, Savage being absent and the store being in charge of two clerks and a man named Brown, the Indians suddenly revolted; they attacked the store, demolished it and killed the two clerks; Brown, barefooted and in his night-clothes was taken up by an Indian named Arosa, who carried him in his arms across the Fresno River; once safely across, Brown did not stand on the order of his going but went at once, and never halted until he arrived at Mariposa. He probably made the best time that was ever made by an individual between the Fresno and Mariposa, for his speed was accelerated when he heard a dozen or more Indians, who had discovered his escape, whooping and yelling in full pursuit of him.

About the second day of January, 1851, one Cassady and Lane kept a trading-post a few miles below Millerton, and they were engaged in mining above Millerton, at a point yet know as Cassady Bar. Here they had some thirty men engaged, and erected a stone fort around their mining camp; while their trading-post was surrounded by ditches and entrenchments, for protection against the Indians. Cassady was one of those foolhardy, swaggering, thoughtless fellows, a very Georgia Major, who declared that he did not fear any Indian in the world, and apprehended no trouble from them.

But soon the redskins engaged in a general warfare, opening the ball by killing two teamsters on Fine Gold Gulch and driving off their stock, and killing two men just below Millerton.

On or about the 15th day of January, 1851, Dr. Lewis Leach now of Fresno arrived from Four Creeks at Cassady's trading-post, in company with several men, one of whom, Frank W. Boden, had received at Four Creeks several arrow wounds in his right arm, and upon arriving at Cassady's it was found necessary to amputate the arm, which was accomplished by Dr. Leach, who then had to remain with the patient several days, and who in eight or ten days was convalescent. About the 20th of January, 1851, Cassady and Savage came down from the mining camp at Cassady Bar to see how matters progressed at the trading-post. Up to this time, the men who were left in charge of the trading-post had kept a guard out every night, taking turns about, and digging ditches and entrenchments around the camp, but on this particular night Cassady refused to stand guard, saying there was no danger to be apprehended from the Indians and that he did not fear any of them. As no one's property but Cassady's was in jeopardy and he refused to take the necessary precautions for its protection, the rest of the boys concluded that if Cassady could stand it, they could, and so they all went to bed, and no guard was put out that night, Savage sleeping in a covered wagon inside the inclosure. In the morning the first sight that greeted the boys was an arrow sticking in the canvas of the main tent, and, upon further examination, arrows were found sticking in several of the mules and horses inside the corral, and fresh Indian foot-prints were found all along the bank of the river; but, notwithstanding these unmistakable evidences of hostility on the part of the Indians, Cassady refused to be warned by them, and stubbornly persisted in his declarations that there was no real danger, and that the Indians would harm no one.

VOLUNTEERS ORGANIZED.

On the day following, Leach and Savage left Cassady's camp and went to Mariposa, where, about this time, three volunteer companies were organized, under command of Maj. James D. Savage. Captain Kuykendall commanded Company A, of seventy men; Capt. John Bowling commanded Company B, of seventy-two men, and Capt. William Dill commanded Company C, of fifty-five men—M. B. Lewis acting as Adjutant, and A. Brunston, Surgeon, who was afterwards removed and Dr. Lewis Leach appointed in his stead. In the meantime Cassady was visited with the inevitable consequences of his temerity and foolhardiness, for intelligence reached Mariposa that he had been killed by the Indians. A detachment of thirty men of Captain Kuykendall's company, among whom was Dr. Leach—now residing in Fresno City—was detached to go and look for the remains of Cassady, and perhaps of others. The body of Cassady was found on the bank of the San Joaquin River, a short distance below his trading-post. His legs had been cut off, his tongue cut out and pinned with an arrow over the region of his heart, and the body was otherwise horribly mutilated. He was decently interred near the place where he fell.

SOLDIERS MOUNTED ON MUSTANGS.

Here the detachment, which was composed mostly of sailors, captured a band of mustangs and cattle. The men were nearly all on foot, and when the fat, fine-looking mustangs were captured, the idea of further walking was scorned, and each of the sailors secured a horse; they had no ropes, saddles, or bridles, and rawhide was substituted for all these—rawhide bridles were made—blankets were lashed to the backs of the horses with rawhides, to serve as saddles, and rawhide ropes were manufactured. When everything was ready, and the detachment was ready to depart, each one mounted his untamed, fiery steed, and then the fun commenced. The sailors, who knew as much about horses, and especially mustangs, as a baby does about a steamboat, went spinning through the air like windmills, while the mustangs, feeling themselves once more free, raced off into their native plains with all the improvised accouterments fastened to them. Fortunately, none of them sustained serious injury, and the discomfited sailors, finding their first lesson in equestrian exercises unsuccessful, wisely concluded that it was far better to walk than to again attempt riding such kicking, bucking brutes.

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*One of the first officers of Tulare County.

From Cassady's place, Kuykendall's company was ordered to the head-waters of the San Joaquin River, where they fought a battle with the Indians, killing thirteen and wounding many others. Captain Bowling was sent to the Yo Semite country, and Captain Dill was ordered with his company to the head-waters of the Chowchilla. Several battles were fought, the Indians being in every instance soundly whipped, and finding that further resistance was useless, they soon sued for peace. Tomquit, the chief of the San Joaquin tribe, and Frederico, their war chief, came in and surrendered, and soon after all the chiefs of the hostile tribes surrendered and gave themselves up; whereupon a treaty of peace, between the chiefs and three commissioners sent out by the Government, was concluded, drawn up and signed on the 29th day of April, 1851. The original treaty and the muster rolls were in possession of W. T. Rumble, Esq., of Fresno, and shown us by him.

Among other stipulations of the treaty was that in consideration of the premises, and with a sincere desire to encourage said tribes in acquiring the arts and habits of civilized life, the United States will also furnish them with the following articles, to be divided among them by the agent according to their respective numbers and wants, during each of the two years succeeding the said ratification, viz:—

"Two pairs strong pantaloons and two red flannel shirts for each man and boy; one linsey gown for each woman and girl; 3,000 yards calico and 3,000 yards brown sheetings; 30 pounds Scotch thread; 6 dozen pairs scissors, assorted; 1 gross thimbles and 5 of needles, assorted; one 2½-pt. Mackinaw blanket for each man and woman over 15 years of age; 3,000 pounds iron and 800 pounds steel. And in like manner in the first year for the permanent use of the said tribes and as their joint property, viz: 75 brood mares and 3 stallions; 150 milch cows and 3 bulls; 12 yoke of work cattle, with yokes, chains, etc.; 12 work mules and horses; 30 plows (10 large and 20 small); 30 sets plow harness for horses or mules; seeds of all proper kinds for planting and sowing; 100 chopping axes; 100 hatchets, 300 mattocks or picks; 300 garden or corn hoes; 100 spades; 15 grindstones; 3 U. S. flags—one for each principal chief."

FORT BISHOP ERECTED BY SAVAGE.

In the summer of 1851, after the treaty was concluded, Savage put up a store on the Fresno River. In the following winter he moved further down the river and built Fort Bishop, doing the bulk of his trading with the Indians, who in those days dug out large quantities of gold-dust, the mines having hardly been prospected by the whites. The Indians still manifested a restless and turbulent spirit, but did not resume open hostilities; but they were not admitted inside the store, and the goods which they bought with their gold-dust were handed out to them through small openings left in the walls, and which were securely fastened at night.

INDIAN RESERVATIONS ESTABLISHED.

About this time the Fresno Indian Reservation was established, Col. Thomas Henley being appointed agent, with W. B. Lewis sub-agent, and J. B. Folsom chief hunter.

Soon after the King's River Reservation was established, also under Colonel Henley, with Wm. J. Campbell sub-agent; one Judge Marvin was quartermaster at this reservation, furnishing all the supplies; Chas. A. Hart was his wagon-master, and E. P. Hart and D. J. Johnson were also employed here. Judge Hart still resides at Fort Miller, which property he purchased.

The Indians in the meantime kept quiet, and everything went on smoothly and harmoniously enough until the 16th day of August, 1852.

MURDER OF SAVAGE BY JUDGE HARVEY.

Some time previous to this date, August 16, 1852, one Major Harvey, and Wm. J Campbell, either hired or incited a lot of men, who rushed into one of the rancherias on King's River and succeeded in killing a number of old squaws. Harvey and Campbell had become jealous of Savage in consequence of his prosperity with, and his influence over, the Indians. Savage complained of this dastardly outrage to the Indian Commissioners, and publicly asserted that Harvey was no gentleman, which of course came to the ears of Harvey. On the 16th day of August, 1852, Savage paid a visit to the King's River Reservation, but previously to this Harvey declared that if Savage ever came there he would not return alive. Arriving at the reservation early in the forenoon, Savage found there Harvey and Judge Marvin, and a quarrel at once ensued between Savage and Harvey, the latter demanding of Savage a retraction of the language he had used regarding Harvey, whereupon Savage slapped Harvey across the face with his open hand, and while doing this his pistol fell out of his shirt bosom and was picked up by Marvin. Harvey then stepped up to Marvin and said: "Marvin, you have disarmed me, you have my pistol." "No," said Marvin, "this is Major Savage's pistol," whereupon Harvey, finding Savage unarmed, commenced firing his own pistol, shooting five balls into Savage, who fell, and died almost instantly. Marvin was standing by all this time, with Savage's pistol in his hands, too cowardly or scared to interfere and prevent the murder.

ACTS OF FIRST COUNTY JUDGE.

At this time Harvey was County Judge of Tulare County, and one Joel H. Brooks, who had been in the employment of Savage for several years, and who had received at his hands nothing but kindness and favors, was appointed by Harvey, Justice of the Peace, for the purpose, it is said, of investigating Harvey's case for the killing of Savage. Of course Harvey was acquitted by Brooks—was not even held to answer before the Grand Jury. Harvey finally left, in mortal fear of the Indians, for he imagined that every Indian was seeking his life to avenge the murder of Savage. He became nervous and irritable and finally died of paralysis.

MONUMENT ERECTED TO SAVAGE.

In 1855, Dr. L. Leach, now of Fresno, who had formally been associated with Savage in the mercantile business, disinterred the remains of Savage and transferred them to the Fresno River, to a point known as Leach's old store. A shaft about ten feet high, standing upon a pedestal, both of Connecticut granite, and costing $800, marks the spot where Savage rests, and bears the simple inscription, "Maj. Jas. D. Savage."

This monument weighs many tons. It was shipped from Connecticut by water to Stockton and from there transported across the country by eight horses, and on a truck especially constructed. Great difficulty was found in placing the monument, owing to want of proper tackle.

Savage had complete control over the Indians; he had married the daughters of five different chiefs; and although uneducated, being unable to either read or write, he amassed, within a few years, a fortune of $100,000. He was an excellent judge of human nature, a shrewd business man, fearless and generous to a fault, even to his foes; and had he lived, would have wielded an immense influence in the affairs of the country, but whether for good or evil, no one can tell.

After the death of Savage, many were the aspirants who sought to step into his shoes and gain prominence among, and control over the Indians; but no one ever succeeded in filling his place among them. They felt like orphans, and realized the fact that their best friend was gone.

Since that time they have dwindled away; and the various tribes that then counted their thousands, have now scarcely a corporal's guard left. Whisky and other vices have decimated them.

The Indian Race.

THE race is a thing of the past; the villages which dotted the banks of the river are razed to the ground, and nearly all traces of their existence are obliterated. Most of the aborigines have gone to the happy hunting-grounds, those remaining being scattered among the hills and settlements, possessing no tribal relations or village organizations.

Kit Carson says that in 1829 the valleys of California were full of Indians. He saw much of large and flourishing tribes that then existed. When he again visited the State, in 1839, they had mostly disappeared, and the people who resided in the localities where he had seen them declared that they had no knowledge of them whatever. They had disappeared, and left no record of the cause that led to their extermination. No estimate of their numbers appears to have been made until 1833, and it was known that they had then greatly decreased.

It does not appear difficult to account for the rapid decrease in the number of these savages. The different tribes were continually at war. Besides this, the cholera broke out among them in the fall of 1833, and raged with terrible violence. So great was the mortality, they were unable either to bury or burn their dead, and the air was filled with the stench of putrefying bodies.

Col. J. J. Warner, at present residing in Los Angeles, was one of the Ewing Young party, who, while on a trapping expedition, passed up through the Sacramento Valley in 1832, and returned in 1833. He says "the banks of the San Joaquin and King's River were studded with Indian villages, the houses of which, in the spring, during the day-time, were red with the salmon the aborigines were curing. At this time there were not upon the San Joaquin or Sacramento Rivers, or any one of their tributaries, nor within the valleys of the two rivers, any inhabitants but Indians. At the mouth of King's River we encountered the first and only village of the stricken race that we had seen after entering the great valley; this village contained a large number of Indians, temporarily stopping at that place. We were encamped near the village one night only, and during that time the death angel, passing over the camping-ground of these plague-stricken fugitives, waved his wand, summoning from the little remnant of a once numerous people, a score of victims, to muster to the land of the *Manitou;* and the cries of the dying mingled with the wails of the bereaved made the night hideous, in that veritable valley of death.

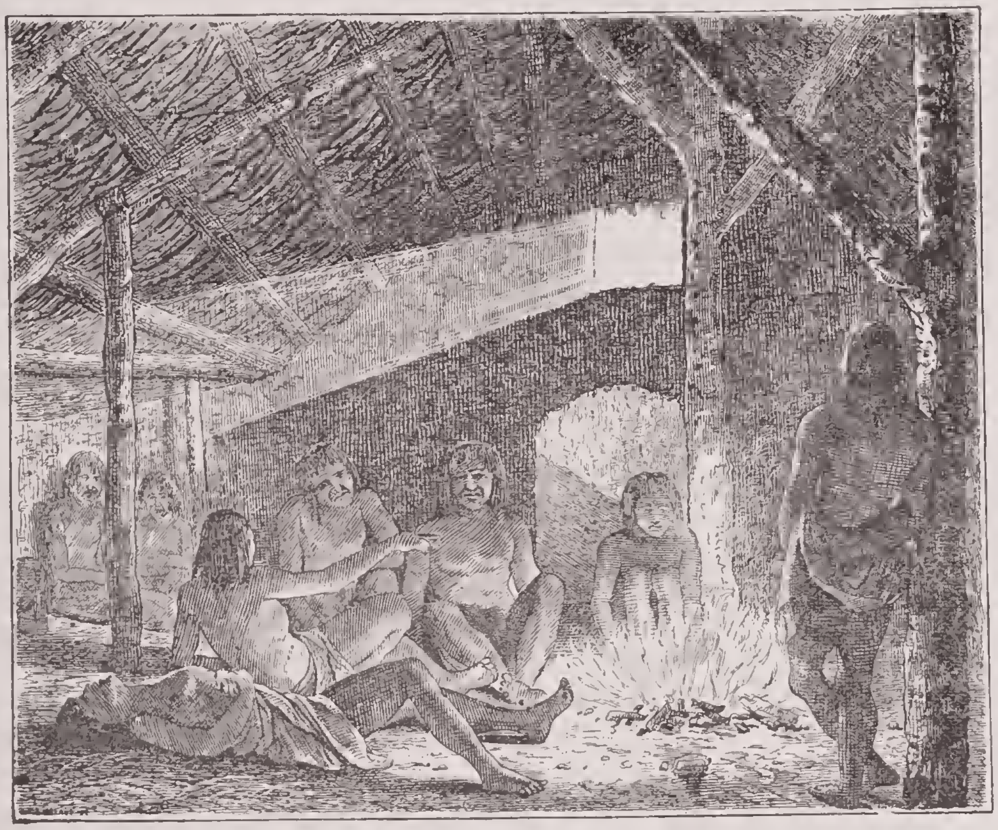
"On our return, late in the summer of 1833, we found the valley depopulated. From the head of the Sacramento to the great bend and slough of the San Joaquin, we did not see more than six or eight live Indians, while large numbers of their skulls and dead bodies were to be seen under almost every shade tree, near water, where the uninhabited and deserted villages had been converted into grave-yards; and on the San Joaquin River, in the immediate neighborhood of the larger class of villages, we found not only many graves, but the vestiges of a funeral pyre."

INDIAN SWEAT-HOUSE.

"About the only thing common to all the Indians of the Pacific Coast was the sweat-house. This great sanitary institution, found in every rancheria or village, was a large circular excavation, covered with a roof of boughs plastered with mud, having a hole on one side for an entrance, and another in the roof to serve as a chimney. A fire having been lighted in the center, the sick were placed there to undergo a sweat-bath for many hours, to be succeeded by a plunge in cold water.

"This treatment was their cure-all, and whether it killed or relieved the patient depended upon the nature of his disease and the vigor of his constitution. Their knowledge of the proper treatment of disease was on a level with their attainments in all the arts of life. Roots and herbs were sometimes used as remedies, but the 'sweat-house' was the principal reliance in desperate cases. A gentleman who was tempted, some years ago, to enter one of these sanitary institutions, gives the following story of his experience:—

"A sweat-house is the shape of an inverted bowl. It is generally about forty feet in diameter at the bottom, and is built of strong poles and branches of trees, covered with earth to prevent the escape of heat. There is a small hole near the ground, large enough for the diggers to creep in one at a time, and another at the top of the house, to give vent to the smoke. When a dance is to occur, a large fire is kindled in the center of the edifice, the crowd assembles, the white spectators crawl in and seat themselves anywhere out of the way. The apertures, both above and below, are then closed, and the dancers take their position. Half-naked Indians and squaws join in the festivities. Simultaneous with the commencement of the dancing, which is a kind of shuffling hobble-de-hoy, the *music* bursts forth. Yes, music fit to raise the dead. A whole legion of devils broke loose! Such screaming, shrieking, yelling and roaring was never before heard since the foundation of the world. A thousand cross-cut saws, filed by steam power—a multitude of tom-cats lashed together and flung over a clothes-line—innumerable pigs under the gate, all combined, would produce a heavenly melody compared with it.



INTERIOR OF TEMESCAL, OR INDIAN SWEAT-HOUSE.

"Round about the roaring fire the Indians go capering, jumping, and screaming, with the perspiration starting from every pore. The spectators look on until the air grows thick and heavy, and a sense of oppressing suffocation overcomes them, when they make a simultaneous rush at the door for self-protection, and find it fastened securely; bolted and barred on the outside. The uproar but increases in fury, the fire waxes hotter and hotter, and they seem to be preparing for fresh exhibitions of their powers. The combat deepens, on, ye brave! See that wild Indian, a newly-elected captain, as with glaring eyes, blazing face, and complexion like that of a boiled lobster, he tosses his arms wildly aloft, as in pursuit of imaginary devils, while rivers of perspiration roll down his naked frame.

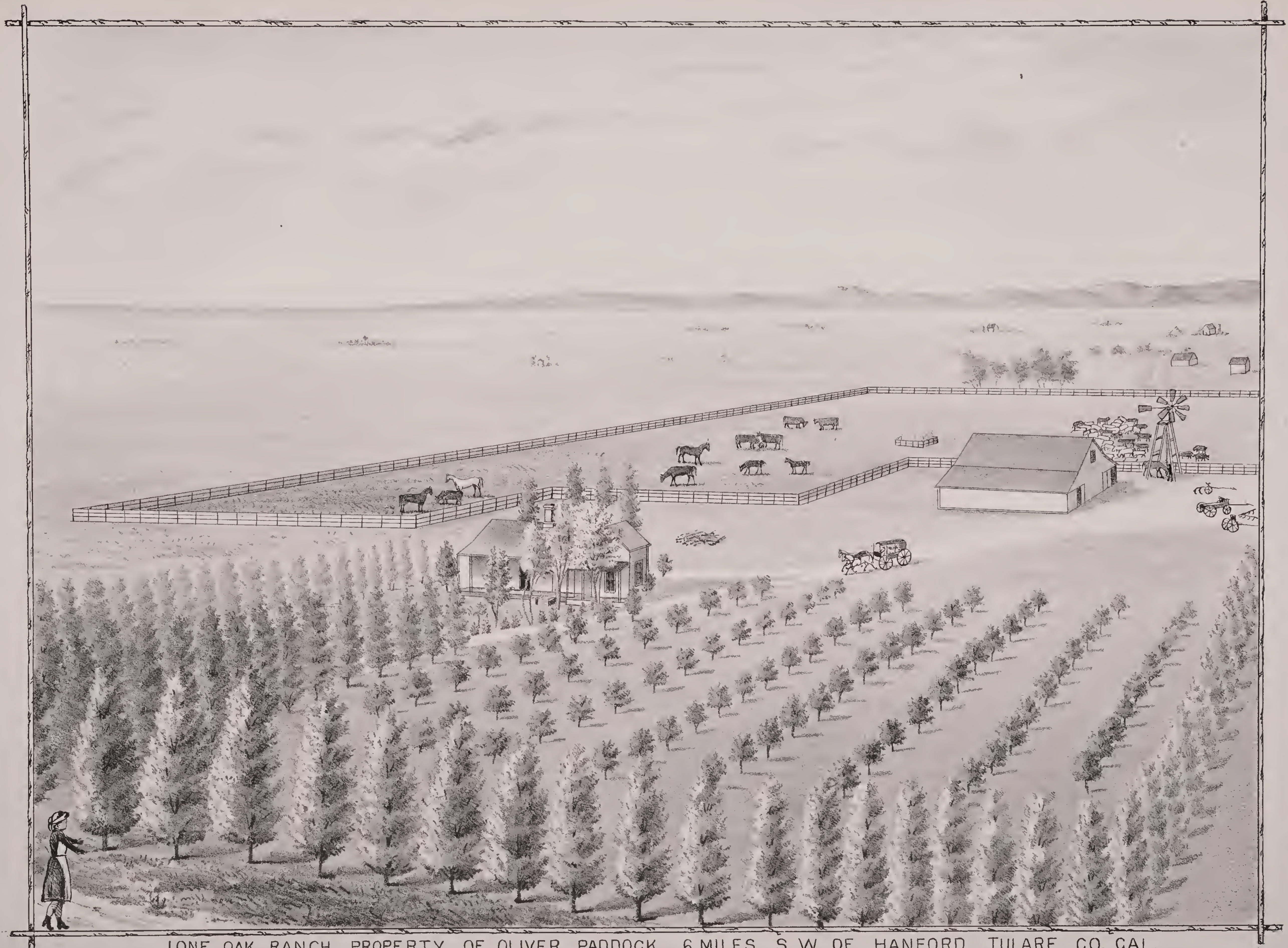
"After hours of suffocation in solution of human perspiration, carbonic acid, charcoal smoke, the uproar ceases and the Indians vanish through an aperture, opened for the purpose. The Indians plunge headlong into the ice-cold waters of a neighboring stream, and crawl out and sink down on the banks utterly exhausted. This is the last act of the drama, the grand climax, and the fandango is over."

Most of the wild Indians had no permanent place or residence. Each tribe had a territory which it considered its own, and within which its members moved about. Each family had a hut, and a cluster of these huts was called a *rancheria*. The rancherias were usually established on the banks of streams, in the vicinity of oak trees, horse-chestnut bushes, and patches of wild clover. Such places were generally on fertile soil, with picturesque scenery.

In the San Joaquin Valley it was more convenient to make the hut a framework of poles, and cover it with rushes or tules. These huts might be deserted for a time, but were considered the property of the builders, who moved, according to the seasons, to those places where they could obtain food most conveniently. In one month they would go to the thickets; in another, to the open plain; in another, to the streams.

FOOD AND ITS PREPARATION.

The principal living of the Indians was grass seeds, acorns and fish. The men were sometimes enterprising enough to kill an antelope, deer, or other game, but as this usually required some considerable labor, fresh meat was not on the daily bill of fare. The squaws did all the hard work, and even had to carry in the fish caught by the lords of creation. The wife or mother of a family was expected to provide all the food necessary for her lord and the children. They make water-tight baskets of willow twigs, in which they collected and prepared their food, carried water, etc. The acorns were dried, and pounded in stone mortars into a very fine flour. A basin was



LONE OAK RANCH. PROPERTY OF OLIVER PADDOCK. 6 MILES S.W. OF HANFORD. TULARE CO. CAL.

then made in the sand on the river bank, about twenty inches across and four inches deep, into which a coating of this meal, about half an inch thick, was put, and water poured on until both meal and sand were perfectly saturated. This being left to stand several hours, took the bitter taste of the acorn entirely away. The squaws understood then just how to take this up, without in the least mixing it with the sand. It was then put into a basket, and a kind of soup made of it.

Grass seeds were pounded up and made into soup, but did not have to go through the purifying process of the sand basins. The river, creeks, and several sloughs, were full of fish, and these were caught by means of nets made of wild hemp. The nets were generally made by the men. Every spring, when the salmon were running up the river, enough were caught and dried to last nearly all the year.

PHYSICAL FEATURES.

In height, these Indians rarely exceed five feet eight inches and more frequently they are lower in stature. In build, they are strong and well knit, though seldom symmetrical. A low, retreating forehead, black, deep-set eyes, thick, bushy eyebrows, high cheek-bones, a nose depressed at the root, and somewhat spread out at the nostrils, a large mouth, with thick prominent lips, teeth large and white, but not always regular, rather large ears, large hands and feet, the latter being perfectly flat, and a broad chin, is the prevailing type.

The complexion is generally very dark, often being nearly black, though some are more of a copper color. The hair is very thick, coarse, black and straight; is generally worn short, especially by the men and some of the older women. The younger ones always wear theirs long.

The men have beards, short, thin, and stiff. We have seen some of the young men with a soft, downy moustache upon their upper lip, cultivating it with as much pride as the ordinary "Young America."

TOILET OF AN INDIAN BELLE.

The women were scarcely better clad, although we think they were much more modest than their sisters of the Colus tribe, who were the admiration of our friend Green, of Colusa, in his younger days, and who, he says in his History of Colusa County,* were so negligent and untidy as to allow their *tunicas* to wear out "until a very few cords sufficed to remind them of the modesty of Mother Eve."

The Indian women of this valley in summer-time wore a fringed apron of tule and other grasses, which fell from the waist before and behind nearly down to the knees, and open at the sides. We never heard of their failing to keep these dresses in good repair, and think when one became sufficiently soiled or damaged to shock the modesty of an admirer that they certainly must have ordered a new one.

There was a great plenty of grass in the country at that time, and it would have been an easy matter for one of our belles to have kept a wardrobe, with several changes in it for all emergencies.

A SHOCKING THOUGHT.

To think of one of these belles appearing at a ball with simply a bunch of tules hung down in front as her only ball dress, is simply shocking.

They might have done such things in Colusa, and such sights may have been witnessed by the historian Green in his young days, but we will not add to the already sufficiently degraded character of the tribes among us such utter disregard of modesty and decency among their women.

In the winter season a half-tanned deer skin is used in addition to the garment above mentioned. The hair is generally worn cut short, though occasionally we find it loose and flowing, especially among the younger women, it frequently falling below the waist. They "banged" the hair by cutting it off square in front, and we presume the present style in vogue among the white belles is taken from the custom of some of these aboriginal tribes. We never saw any of them with "montagues" on; it may be that they are not yet far enough advanced in civilization to adopt these late beautifiers of the person.

FOOD AND METHOD OF OBTAINING IT.

Their main reliance for food is acorns, roots, grass-seeds, berries, and fish. Though generally too lazy to hunt, yet there were times when the men ventured forth on the chase, and managed to kill an antelope, deer, rabbit, or some other game. Small game, such as hares, rabbits, and birds, were easily shot with the bow and arrow, as well as deer and antelope. In hunting the latter the hunter, disguised with the head and horns of a stag, creeps through the long grass to within a few yards of the unsuspecting herd, and pierces the heart of the fattest buck at his pleasure. Game traps, it seems, were never invented by any of them, and they had to depend on the chase altogether for meat. The squaws gather the acorns, roots, grass-seeds, berries, etc., and, in fact, do all the hard work, even to carrying in the fish and game which have been captured by their lords.

The squaw, who is a wife and mother, is required and expected to provide all the food necessary for her buck and the papooses. We have seen them gathering acorns in the forest with large, cone-shaped, willow baskets, carried on their backs by means of a strap attached to the basket and carried around over the head, throwing the whole weight on the forehead; they would knock the acorns down with a pole which they carried for that purpose, and filling their baskets would return towards night, to all appearances completely fatigued. We have seen them in numbers passing through the streets of the town loaded down with the fruit of the oak.

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*Published in 1879 by Elliott & Co.

MODE OF CATCHING FISH.

They caught fish by both spearing and netting. The waters of the San Joaquin, King's, and Kern Rivers generally furnished them with good fishing. They spear the salmon with spears made of some kind of tough wood, from four and a half to five feet long, headed with flint or bone sharpened to a point.

We have seen them catching fish with a net in a manner somewhat similar to the American mode of netting. They dry the fish in the sun, and also pieces of meat cut string-like; this they reserve for winter. After the whites arrived in the county the Indians became, to a great extent, beggars, and now frequently slide around to the back door and beg a meal of victuals, it being seldom that anything can be obtained from them as a recompense for it; sometimes you can get them to saw a little wood, but not often. When they are employed in this manner, they are slow and lazy about it.

KINDS OF FOOD.

As heretofore stated in Dr. Marsh's article, "their food varies with the season. In February and March they live on grass and herbage: clover and wild pea-vine are among the best of their pasturage. I have often seen hundreds of them grazing together in a meadow, like so many cattle."

The angle-worms were found in boggy and swampy localities, around springs, ponds, etc. The squaws, taking their sticks of chaparral, which formed their usual instruments of excavation, pushed them down into the mire. By shaking these from side to side, the surrounding earth was compressed. The worms, feeling the pressure, came to the surface, and were quickly seized and thrown into the baskets. When washed and boiled they made an excellent and nutritious soup—for the Indians.

The green plant-worms were picked from the vegetation, stripped by the fingers, and dried or boiled.

The ants were sometimes disposed of by simply carrying them from the tree or bush to the mouth upon the tongue—primitive, indeed, in its simplicity.

Pine cones were gathered before the nuts had fallen out, and much labor was therefore saved. The nuts, which are of a pleasant, oily taste, and exceedingly nutritious, were extracted by beating the cones, and eaten raw.

The wild pea-vines were gathered in immense quantities when young and tender. By placing elder sticks against the sides of the basket and extending beyond the opening, the squaw was enabled to carry nearly a cart-load of the light growth. In the spring and summer they make lengthy trips into the mountains in search of food, and sometimes prepared their winter stock in these encampments, carrying it afterwards to their rancherias. To prepare the pea-vine for eating, the hole in the ground was resorted to. In this, heated rocks were placed, and covered with a layer of the vine; water was thoroughly sprinkled on; then two or three heated rocks; another layer of pea-vine, sprinkled as before; and so in that order by successive layers, until the mass was formed in the shape of a cone. When completed, one of the baskets was placed over it, forming a secure covering, and the mass left until the next day. It was then thoroughly steamed and cooked. The squaw, with the stone pestle, crushed the steamed mass on an inclined board. With the sole of her foot placed at the bottom of the incline, she kept the vines on the board. The process was continued until all became plastic. The squaw then with her hands shaped it into the form of a cake, and after putting a hole through the center, hung it out to dry. The heated rocks were handled by the squaws with two sticks as easily and gracefully as a civilized woman would wield the tongs.

The great chief "Ten-ie-ya" of the Yosemite tribe, was captured at the time of the Indian war just mentioned, and kept in captivity. But the chief became tired of his food, said it was the season for grass and clover, and that it was tantalizing for him to be in sight of such abundance, and not be permitted to taste it. It was interpreted to Captain Boling, when he good-humoredly said that he should have a ton if he desired it. Mr. Cameron (now of Los Angeles) attached a rope to the old man's body, and led him out to graze. A wonderful improvement took place in his condition, and in a few days he looked like a new man.

BUT FEW INDIANS REMAIN.

The numerous tribes that once occupied the valley of the San Joaquin and the foot-hills of the Sierras, have actually died out or been reduced to a few miserable individuals.

There are but few now left in the country, and an Indian is rarely seen. As the valleys were occupied and fenced, the usual modes of Indian hunting and living were cut off. Quarrels were frequent with the settlers, who claimed to have had cattle stolen, and the Indian was sure on general principles to receive severe punishment.

LAST INDIAN TROUBLE.

The last serious Indian difficulty occurred in the summer of 1856, when the Four Creek Indians again went on the war path. Companies were soon raised in the adjoining counties. About fifty men from Tulare County went to the scene of disturbance. The soldiers stationed at Fort Miller, under Captain Livingston, among whom was John Dwyer, also repaired to the battle-field, taking two howitzers with them, and soon the redskins were dislodged and subdued.

TULARE COUNTY SOLDIERS.

In this campaign, the "Petticoat," or "Cottonbag" Brigade, of Tulare County, did distinguished and enviable service, and is entitled to particular mention for their gallantry, fearlessness, and intrepidity, and above all for their ludicrous and mummy-like appearance in the field.

The boys from Millerton and vicinity, were under Capt. Ira Stroud. Chas. A. Hart acted as commissary, furnishing beef, etc., and was dubbed Captain Carne, meat captain.

The Coarse Gold Gulch and Fresno River boys were under Capt. J. L. Hunt, and the whole force from Fresno County was designated as the "San Joaquin thieves."

INDIAN BATTLE ON TULARE LAKE.

There is an Indian tradition of a battle on Tulare Lake. It is the story of a fight the Indians of this valley had more than half a century ago with the Mexicans. It is given here as it was told to J. W. A. Wright by an old Indian who now lives on the Tule River Reservation, three miles above Porterville, on the north side of Tule River. This old man says a fierce battle and several skirmishes were fought between his people and the Mexicans, somewhere between Atwell's Island and the mouth of Tule River. This occurred when he was a boy just beginning to go about with the warriors of his race. As he was then perhaps sixteen or seventeen years old, and is now between seventy and eighty, this would place the battle in question some fifty or sixty years ago. His statement is that a Mexican force came to this valley across the Coast Mountains from a mission, likely San Juan. This force had, as the old chief expresses it, "a big gun on a cart." He says the "big gun" killed plenty of Indians every time it was shot. But there were too many Indians for the Mexicans. They drove the force back and captured the big gun on wheels.

Having no use for it and not knowing what else to do with it, a large number of them ran it out into the lake as far as they could, and left it there. The very shallow nature of the lake along that shore shows how easily they could have done this. Two miles from shore the water is only three feet deep, and in sounding during a sail for twenty-five miles across that end of the lake the greatest depth sounded was only six feet. If this tradition of the Indians be true, and it certainly has about it the air of probability, that old Spanish cannon must now be lying somewhere in the lake, possibly imbedded in its sandy or muddy bottom, to be some day exposed and found, should the lake water continue to recede as it has for ten years past. The old Indian states farther that his people drove the Mexicans back by way of Buena Vista Slough, and they killed three Mexicans at the south end of the lake and buried them there. Buena Vista Slough, which now is and has for some years been dry, then emptied into Tulare Lake on the west side of Skull Island, near "The Willows."

Though a few surviving Indians resort to Tulare Lake, there were large villages of them near the lake in the remote past, and even when white men first came into this valley, about thirty years ago. Still more of them lived around the lake when Spanish expeditions penetrated Tulare Valley from the mission stations near the coast, fifty, eighty, and one hundred years ago. These lake Indians navigated parts of this lake, more or less, from remote ages up to within the last six or eight years, in canoes about twelve feet long, built of dry tules strongly lashed together by ropes of green tules, the sides and bottom made about four inches thick, just such boats as the ancient Egyptians made from the bulrushes of the Nile, and such as the Abyssinians make to this day along the Upper Nile. The aborigines also made strong, light rafts, by lashing them together in bundles—these tules frequently growing eight or ten feet long. The rafts were usually made ten or twelve feet long, and six or eight feet wide. These rude crafts—both canoes and rafts—would safely carry three or four Indians in shallow and quiet water, such as exists in good weather in the shallows near the shores.

KERN RIVER INDIANS.

The Indians of Kern River, owing to the influence of a mission chief "Don-Bincente," who had a plantation at the Tejon's Pass, remained peaceful during the Indian troubles of 1851–56. Some 150 of the remnants of the Indian tribes still live at the entrance of the Tejon Cañon in cottages of adobe, covered with thatch. They have been taught a simple form of civilization Their dwellings are well constructed, comfortable, and neatly and cleanly kept. They cultivate the ground to the extent of their wants, and have gardens and vineyards and free range for their ponies.

They work mostly on General Beale's ranch, who pays them cash for their labor. They are faithful and trustworthy, and do their work just as they are told. A few have learned to read and write, and are generally inclined to save their earnings, but are inclined to games of chance.

They profess the Catholic religion which seems to have peculiar adaptation to their wants. They have an humble place of worship at their principal settlement surmounted by a cross. One of the congregation often read prayers, and supplied the place of a priest.

Both men and women since the advent of civilization, have adopted, as nearly as possible, the dress of the whites. The women wear the brightest colors of calicos, and sometimes are rich enough to own an old shawl.

KING'S RIVER INDIANS.

At King's River, says Ross Brown, there was a public farm maintained at considerable expense, the Indians were collected in a body of two or three hundred, and the white settlers drove them over to the Fresno Agency, after an expenditure of $30,000 a year. For six years that farm had scarcely produced six blades of grass, and was unable to support the few Indians who lived there. Notwithstanding the acorns, many of them perished of hunger on the plains.

TULE RIVER INDIAN RESERVATION.

This reservation was about thirty miles from Visalia, on rented land. Of course no lasting improvements were made

Organization of the County.

An Act of the third Legislature of California, approved April 20, 1852, provided for the organization of Tulare County, and an election for the first county officers was held on the 10th day of the following July.

James D. Savage,* John Boling, M. B. Lewis, and H. W. McMillen were the Board of Commissioners appointed to hold the election, and the following officers were chosen: County Judge, Walter H. Harvey;* County Attorney, F. H. Sanford; County Clerk, L. D. F. Edwards; County Recorder, A. B. Gordon; Sheriff, Wm. Dill; Surveyor, Joseph A. Tiry; Assessor, James B. Davis; Coroner, W. H. McMillen; Treasurer, J. C. Frankenberger.

AN UNKNOWN COUNTRY.

The total population of the county exclusive of Indians, did not exceed sixty-five souls, and not one woman among them. So remote from centers of population was this new county, that long after its legal existence had been established it remained a *terra incognita;* so much so, in fact, that when the first County Treasurer went to the State Capitol to make his settlement with the State Treasurer, he was informed by that official that he had no knowledge of the existence of such a county as Tulare, and the County Treasurer experienced considerable difficulty in obtaining recognition.

A LARGE COUNTY.

Tulare County at that time comprised the greater part of what are now Kern and Inyo Counties, with a portion of what is now Fresno County. Tulare did not develop very rapidly after its organization, as the vast immigration to this State at the time was composed for the most part of gold hunters, and the Kern River and other mines had not at that time been discovered.

PROGRESS OF THE COUNTY.

The population in 1860 was 4,368. In 1870 it was as follows:—

	TOTAL.	NATIVE.	FOREIGN.
Farmersville	807	755	52
King's River	166	148	18
Packwood	214	172	42
Tule River	1,098	953	145
Tule Indian Reservation	12	10	2
Venice	490	475	15
Visalia	1,626	1,377	249
Visalia	913	707	206
White River	120	87	33
Total	5,446	4,684	762

The State census of 1880 showed the following as the official population of the county by divisions:—

Kaweah and Mineral King Townships	1,053
Mussel Slough Township	1,776
Lemoore Township	1,744
Tulare Township	802
Tule River Township	2,282
White River Township	96
Visalia Township (including Visalia City)	2,628
Visalia City separate	1,412
Total of county	11,280

EARLY TIMES AND TROUBLES.

In early days there was a wild, rough population. This was a frontier country. The people were all armed against the common enemy, the Indian savage and the Mexican freebooter, and nearly all disputes were settled at the muzzle of the revolver and the point of the knife, and it is said that of the first officers of the county whose names are given above all but two met violent deaths in personal rencontres.

At a later date fierce political contests took place, and the office of the Visalia *Expositor*, a secession sheet, was destroyed by the soldiers of Camp Babbitt, March 5, 1863. The editor, L. P. Hall, had previously been arrested for disloyalty and released.

A political fight occurred at Visalia, August 6th, same year, between a party of soldiers and a number of secessionists. One soldier was killed and three wounded. Great excitement prevailed throughout the community for several days after the affair, but it was finally allayed without further bloodshed.

FIRST COUNTY SEAT.

The Act of organization designated Woodville, a place five miles northeast of Visalia, as the county seat, and on July 10, 1852, a band of hardy pioneers met at Woodville, held an election under an oak tree, and, following the forms of law by their acts, gave birth to a new political division of the State, thereafter to be known as Tulare County, and elected the first county officers.

In 1854 an election was held to determine whether the future county seat should be Woodville or Visalia. At this election eighty-five votes were cast, and Visalia, by a majority of four votes, was designated as the local seat of justice.

FIRST COURT HOUSE AND JAIL.

"The first Court House," says E. Jacobs, "consisted of a small log cabin surrounded by a cheap fence. The county jail consisted of five stumps of trees within this inclosure, each with an iron ring attached to it by a staple, to which culprits were chained for security; the several county officials carrying the county records in their hats and pockets.

"It was then a weak and primitive settlement surrounded by overwhelming numbers of half savage Indians, only kept in subjugation by the stern and indomitable courage of hardy frontiersmen.

"Then, means of communication with the marts of commerce was the slow moving ox-team; now, the railroad is at the door affording rapid transportation to all parts of this great country. Then, they had no postal facilities and at least a month was consumed in exchange of correspondence with the great metropolis of the State as well as the State capital, by the ordinary mode by which letters were conveyed; now, twenty-four hours yield the same results, and if so desired the trained lightning, annihilating time and space, obeys behests. Then, the primitive log cabin, or at least a brush shed, sheltered the settler and his family; now, on every side we see comfortable and elegant residences, evidencing wealth and prosperity. Then, the virgin soil of this fertile valley had not felt the aggressive art of the husbandman; now, orchards, vineyards, broad fields and groaning granaries are mute monuments of the capabilities of that soil. Then, the silence of nature held sway almost throughout the whole length and breadth of fair Tulare; now, the busy hum of industry greets the ears in whatever direction you may turn, giving, as it were, happy greetings from happy homes."

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*Savage was killed by Harvey as heretofore related on page 90.

NEW COURT HOUSE ERECTED.

The Board of Supervisors met in special session on Monday, April 10, 1876, for the purpose of receiving and adopting plans for building a new Court House and jail.

Plans and specifications were presented by A. A. Bennett, Esq., and Messrs. Kenitzer and Raun, of San Francisco, and Charles Pressler and A. Beyer, of Visalia; and the Board, after canvassing the same, ordered that the plan and specifications presented by A. A. Bennett, Esq., be accepted.

Ordered—That the Clerk procure forthwith 200 county bonds, to be issued in accordance with the Act of the Legislature, to provide for the building of a Court House and jail.

Ordered—That bonds to the amount of $20,000, of the denomination of $500 each, be issued in accordance with said Act, and notice be given of the sale thereof by publication in the San Francisco evening *Bulletin* and daily *Examiner*, and the Tulare weekly *Times*, and Visalia weekly *Delta*, until Monday, May 29, 1876.

Ordered—That notice by publication be given, that on Saturday, May 6, 1876, the old Court House and jail will be offered for sale at public auction, and that proposals will be received at the same time for furnishing suitable rooms for county offices and a court room.

Bids for building a Court House and jail in Visalia were received and opened in June by the Board of Supervisors; the bids are as follows:—

Albert Washburne	$68,772
Hall & Kelley	72,800
Power, Ough & Warner	73,230
Carl & Crowley	74,491
Stevens & Childers	59,700
James H. Sullivan	74,846
M. C. Smith	74,715
A. Byer	71,877
Weishar & Switzer	63,840

Each bid was accompanied with a check of $2,000, according to requirement. Stevens & Childers' bid being the lowest, the Board awarded the contract accordingly, June, 1876.

Sheriff Wingfield sold the Court House and jail at Visalia, May 6th. A. H. Glasscock secured the Court House for $682.50, and R. E. Hyde purchased the jail for $225.

The county officers occupied the hall until the completion of the new Court House.

FIGHT OVER COURT HOUSE.

The erection of a new Court House, and consequent permanent location of county seat, at Visalia, naturally drew out considerable opposition from other localities. A meeting was held at the Court House, and called to order by Mr. Fairbanks, from Tipton. C. W. Clark was nominated as chairman, and E. T. Buckman, of Tulare, was appointed as Secretary.

On motion of A. T. Cotton, the chair appointed the committee, consisting of A. T. Cotton, Mr. Fairbanks, A. Fletcher, L. A. Pratt, and I. N. Wright, who introduced the following:—

"Whereas, We gladly embrace this opportunity of raising our voice against the manipulations and wire-workings of scheming and designing men, who are fast bringing the politics of our country into disrepute, and making of our boasted democracy a myth and a laughing stock; and whereas, it is with dread that we look forward to where we are drifting, and are fully persuaded that the time for action has now arrived; inasmuch as already the masses are looked upon and treated as serfs to do the bidding of and pay homage to their political masters, who in turn make cheap promises to the people, in order to secure large profits to themselves; and whereas, we recognize in the matter of the Tulare County Court House Legislation fresh and glaring evidence of corruption, and a strong desire to tyrannize over and outwit the people; and in various articles in the organ of the Court House upon this subject, we observe a disposition to insult and to injury, therefore,

"*Resolved*, That we consider the various bills passed by the last Legislature of our State, in relation to the Court House in this county, and the removal of county seats, as an outrage on the majority in the county, and in violation of the Constitution of the State and of the United States.

"*Resolved*, By the tax-payers of Tulare County to-day represented in convention, that we will make an effort to assert our right to be taxed, and our consent thereto obtained, as expressed in the usual way by the ballot.

"*Resolved*, That we look upon the method whereby the said Court House bill became a law, as subversive of the rights of the people, as wrong in principle, and as outrageous in fact.

"*Resolved*, That the principles involved in the said Court House bill enables the minority to oppress and enslave the majority, to tax their property without their consent for the purpose of enhancing the wealth of the few at the expense of the many.

"*Resolved*, That the building of a new Court House at the time was wholly unnecessary and uncalled for, and is believed to be a part of a system of plunder whereby a few designing men may rob the people for their own benefit.

"*Resolved*, That we will use all and every legal means within our power to defeat the operations of said Court House bill, until an expression of the will of a majority of the taxpayers of this county can be had at the next election for representatives.

"*Resolved,* That any and all loss or inconvenience resulting from the premature pulling down of the old Court House, lies at the door of the authors of the iniquitous Court House Bill.

DEDICATION OF COURT HOUSE.

Notwithstanding considerable opposition, the work proceeded, and the new building was dedicated October 27, 1876.

Various organizations participated in the solemn ceremonies, which were conducted by the Most Worthy Grand Master of the Grand Lodge of F. and A. M.

John Mills Browne, was presented by the citizens of Visalia with a handsome and elegantly engraved silver trowel, as a token of respect and an appreciation of his highly honored position and services.

A highly interesting address was delivered by E. Jacobs, Esq.

The following is a list of the articles deposited in the corner stone:—

LIST OF ARTICLES.

Roll of officers and members of Visalia Lodge, No. 128, F. and A. M., and a copy of their by-laws.

Proceedings of Grand Lodge of F. and A. M. of California.

List of officers and members, and copy of by-laws of Damascus Encampment, No. 44, I. O. of O. F.

List of officers and members of Four Creeks' Lodge, No. 94, I. O. of O. F.

Holy Bible, presented by I. N. Matlick.

By-laws and members of Visalia Chapter, No. 44, R. A. M., and one trade-dollar, half-dollar, and twenty cents.

Constitution of U. S. of America, in manuscript, by A. Beyer.

Copy of Regulations of School Laws and of School Libraries, by W. A. Wash.

Copy of California Revised School Laws, by W. J. Ellis.

Announcement of Visalia Normal School, September 4, 1876, by McPhail & Orr.

Copy of *Tulare Weekly Times* of October 28, 1876, containing a fine picture of the Court House as it will appear when finished, and a description of the several rooms.

Copy of Visalia *Weekly Delta* of October 28, 1876.

Copy of Visalia *Iron Age* of October 25, 1876.

Copy of Great Register of Tulare County, California, for the year 1876.

Poster and programme of the Centennial celebration on the 4th day of July, 1876, at Tulare City, California.

One redwood knot of the largest redwood tree of Tulare County, forty-three feet in diameter, three hundred feet in height, by Geo. Kraft.

A piece of silver ore from the Emma Mine of Tulare County, by Geo. Kraft.

One ten-dollar note of the late Confederate States of America, by Geo. Kraft.

One Prussian silver dollar, by R. Broder and Leou Jacob.

Two phials of wheat grown in 1876, by E. Jacob.

One $20 gold piece, 1873, by E. Jacob.

One $5 gold note, First National San Francisco Gold Bank, 1870, by E. Jacob.

One one dollar currency note, by E. Jacob.

One twenty-five cents currency, by E. Jacob.

Nine foreign coins, San Francisco Journal of Commerce, October 26, by E. Jacob.

One trade dollar and a number of foreign coins, by Dr. Davenport.

Copy of the Ulster County *Gazette*, published in Ulster County, New York, in the year 1800, January 9th, containing an account of the death of Gen. George Washington, by P. H. Martin.

VIEW OF THE COURT HOUSE.

We present to our readers, as a frontispiece, a fine page view of this grand building which is 60x95 feet, with a wing on either side 12x31 feet, exclusive of breaks, porticoes, and all other projections; basement 12 feet; main story 15 feet. The district court room 22 feet; county court room 22 feet; upper corridor, clerk's office, 17 feet. The balance of the rooms in the upper story, 17 feet.

For the brick-work, excavations were made for foundations 3 feet 6 inches, below the average surface of the ground; the main walls have 7 feet foundation. The main walls, two bricks piers up to the top of the pedestal wall, eight inches additional; pilasters four inches to top of cornice; vault walls 21 inches; inside partition 13 inches, front piers and columns 21x24.

Penryn Granite sills and steps are at front and rear, leading to basement; all the outside door-sills are 8 inches thick. All stone-work is of bush hammered work and same set in cement.

A jail is in a part of the basement, as well as some of the offices for county use.

Messrs. A. L. Stephens and Arnold Childers, of Sonoma County, were the contractors, and A. A. Bennett, Esq., of San Francisco, architect.

COURT HOUSE BONDS ISSUED.

By the Court House Act the Board of Supervisors were "authorized and directed to issue the bonds of the county to an amount not exceeding $75,000; all bonds to be payable twenty years from the date of their issuance, with interest at the rate of ten per cent. per annum, payable annually on the second Monday in January in each year; both principal and interest to be made payable in U. S. gold coin only. The bonds shall be issued in denominations of $500 each, and shall be signed by the Chairman of the Board of Supervisors and County Clerk. Interest coupons shall be attached and signed in like manner. The Supervisors shall issue $20,000 of the bonds within sixty days after the passage of this Act, and shall issue the remaining amount of $55,000 of the bonds from time to time at such times as shall be necessary to provide funds for the progress of the construction of the Court House and jail, provided for in this Act, and for the payment of claims to become due therefor. All bonds issued under the provisions of this Act may be paid and discharged by said county at any time after ten years from their respective dates, which right of payment and discharge shall be specified in each bond.

"All moneys derived from the sale of the bonds shall be set apart as a 'Court House Building Fund,' and shall be applied, laid out, and expended in the building of and constructing a Court House with jail in the city of Visalia, in Tulare County said building to be erected in the present Court House square, and the necessary county offices in and for said county, and furnishing the same, and improving the Court House grounds.

"For the purpose of paying the interest on the bonds, the Supervisors shall, at the time of levying the county taxes for each year, levy a special tax on all property in the county, sufficient to pay the interest on all bonds then outstanding, as the same shall fall due. The special tax thus levied shall be assessed and collected as other county taxes are assessed and collected, and be set apart as a special fund, to be known as the 'Court House Bond Interest Fund,' and out of this fund the coupons on the bonds shall be paid as they fall due.

"In and for the year 1886 and each year thereafter until the whole of the bonds are paid, the Board of Supervisors shall levy and cause to be collected a tax sufficient to pay ten per cent. of the whole issue of the bonds, and the tax thus levied and collected shall be set apart as a special fund, to be known as the 'Court House, Bond, and Redemption Fund.'"

COUNTY BOUNDARY DISPUTES.

In 1857, the County Surveyor, O. M. Brown, of Fresno, was authorized to run the line dividing Fresno from Tulare, Mariposa, and Merced Counties.

August, 1856, Hewlett Clark and James Smith of Fresno, were appointed a committee, to meet a like number of committeemen from Tulare, Merced, and Mariposa Counties, to adjust the boundary lines between said counties.

About 1859–60, an effort was made to attach a large portion of Fresno County to Tulare, but the citizens of Fresno generally fought hard against the proposition, and it was defeated.

The surveyors of the boundary line between Tulare and Fresno Counties discovered the fact that several parties who were supposed to have been residents of Fresno belonged to Tulare. Among whom were K. W. Jones, near the Coast Range; Joseph, William and Lemuel Harp, and James Hodges, near Kingsburg; Jesse Loudy, north of Laguna de Tache; L. R. Beard, above the railroad, on the Fresno side of King's River; H. D. Brewer, on south side of the river, below Kingston. The line crosses King's River at the head of the Last Chance Ditch.

The commission appointed by the Legislature to ascertain the amount due Tulare County from Kern were as follows: E. Jacob and R. Nichols for Tulare, and W. L. Kenneday and E. E. Calhoun for Kern County.

After the gold fever allayed and the immigrants started into agriculture, it was found that the soil of Tulare was remarkably productive and so farming began to be carried on quite extensively.

Size of the County.

FROM data furnished by the gentlemanly and efficient Receiver, Hon. Tipton Lindsey, at the Land Office at Visalia, we make the area of the county estimated at 4,000,000 acres. This is probably to be divided about as follows:—

Area of Tulare Lake, 300,000 acres; area of valley lands, 1,700,000 acres; area of mountain lands, 1,000,000 acres; area of foot-hill lands, 1,000,000 acres; total, 4,000,000 acres.

There are in the county of unsold lands on the plains exclusive of all railroad lands probably 400,000 acres. Of the foot-hill lands about one-half have been sold, and of the mountain lands but little have been disposed of.

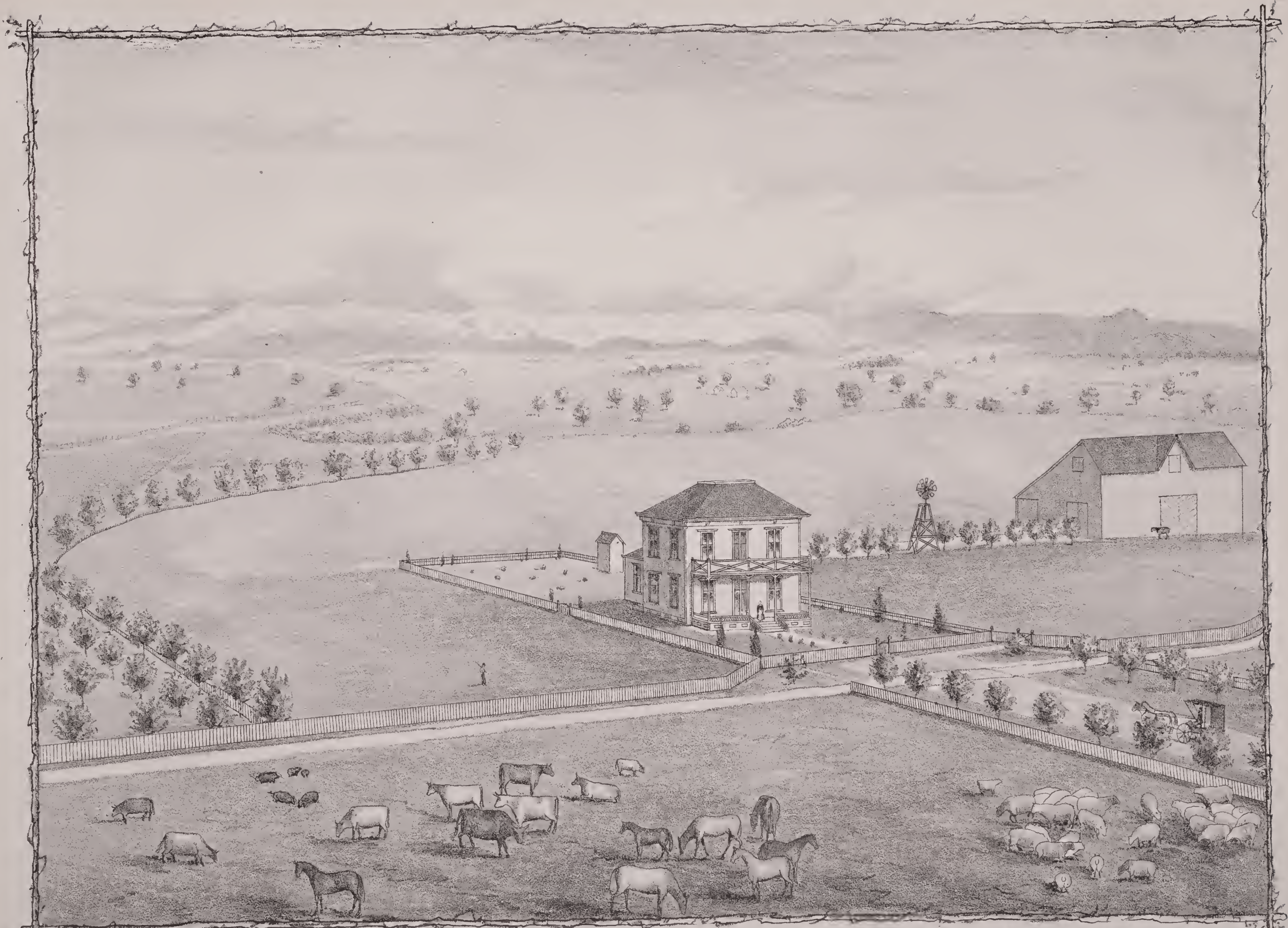
"There is a large extent of country," says the *Delta*, "to the north and east of Visalia—probably not less than 200,000 acres—that requires very little water for irrigation; in fact, that to the east of the town is swamp land, and would require drainage rather than irrigation. These lands are particularly adapted to blackberries, strawberries, fruits, and vines. They are held, mostly, by not to exceed four or five men. Were they subdivided into small tracts and disposed of at say $40.00 per acre, within the next two years it would add a large population of industrious and thriving people. We would call the attention of capitalists on the outside to these lands, and invite an inspection."

AMOUNT AND KIND OF LAND.

From information kindly furnished us by the Register at the Visalia Land Office, we learn that "The Visalia land district embraces Fresno, Tulare, and Kern Counties. These counties are a great level valley with the Sierra Nevada Mountains on the east and the Coast Range on the west. They contain more than 5,000,000 acres of level land and more than 2,500,000 acres of mountain and foot-hill land.

"Through the center of these counties, north and south, runs the Southern Pacific Railroad. The odd numbered sections of land for twenty miles on each side of this road belong to the railroad company. The even numbered sections of Government land within these limits are held at $2.50 per acre. The Government land outside of these limits is $1.25 per acre. None of the Government lands are subject to private entry; they can be obtained only by pre-emption and homestead settlers.

"There is," says J. D. Hyde, Register, "more or less vacant Government land in almost every township in this district, amounting in the aggregate to many thousands of acres. A large portion of these vacant lands are good, and are capable of producing, with proper cultivation, all the products of the soil of the temperate and semi-tropical zones. Much of this vacant land is as good in quality as private lands in the district worth $25.00 per acre; but these private lands have been increased in



ELLIOTT. LITH. 421 MONT. ST. S.F.

RESIDENCE & RANCH OF SAMUEL TOME, 4 MILES NORTH. OF HANFORD. TULARE CO. CAL.

value by cultivation and means for irrigation. Facilities are at hand to make the public lands equally valuable.

"Inquiries are often made for maps of vacant lands. We have no such maps to offer; nor would they be of much use if we had. The district is so large that to describe the vacant lands intelligibly would require many maps, and to give a general idea of the locality would be no better information than could be got from a good school atlas. But there are plenty of vacant lands in this district, and a settler cannot fail to find such as will suit him."

DESCRIPTION OF PRINCIPAL RANCHES.

The following is a brief description of the principal ranches of Tulare County, furnished us by E. O. Miller, Searcher of Records, who has the only complete set of abstract records in the county. He also has a valuable collection of maps and surveys. Titles to any land examined and abstracts promptly prepared. He is also interested in the real estate business, and will buy and sell land on commission:—

MURPHY RANCH, 2,720 acres; situated on Tule River about thirty miles from Visalia; is well watered, and is choice land, adapted to the raising of orchard and vineyard. Title, State swamp land. Owned by the estate of Daniel Murphy.

"L. C.," 5,425 acres. Title, U. S. Patents and State patent; situated about ten miles south of Visalia; abundance of water and choice land; present owner, George D. Bliss.

CREIGHTON RANCH, 5,200 acres; situated in the artesian belt, about eight miles southwest of Tulare; is watered by artesian wells and Elk Bayou, a stream which has living water; is level land and well adapted to alfalfa and stock-raising. Present owner, J. M. Creighton.

HARRELL RANCH, 3,640 acres; situated on the head of Cross Creek, about six miles north of Visalia; is well watered, and 1,500 acres in cultivation. This is the finest tract of its size in the county. Title to most of the tract is U. S. Patent, part State swamp title. Part of the land is in litigation. Present owner, Jasper Harrell.

POGUE RANCH, 3,800 acres; situated about eighteen miles east of Visalia; is farmed and cultivated. Is watered by the Kaweah River. Title is U. S. Patent and State school land; owned by J. W. C. Pogue and the heirs of Wm. H. Wallace, deceased.

PAIGE & MORTON RANCH, 4,705 acres; situated about four miles west of Tulare; is in a fine state of cultivation, and is watered by the waters of Packwood Creek and two artesian wells. Title, U. S. and State Patents; owned by James Morton and Timothy Paige.

LAUREL FARM, 1,440 acres; situated about four miles west of Tulare; farmed and cultivated and is in an excellent state of cultivation; is irrigated by canals and artesian wells. The title is U. S. and State Patents, and is owned by John F. Uhlhorn and P. W. Maples.

THORTON RANCH, about 5,000 acres; situated on King's River; is irrigated land, and well cultivated; it produces small grain and alfalfa; is irrigated by the water of King's River. Is owned by David Burris.

MARKHAM RANCH, 3,500 acres; situated on Cross Creek about ten miles west of Visalia. Title U. S. and State Patents. Owned by Damoetas Markham.

HEINLEN RANCH, about 4,400 acres; situated in the southwest portion of the county near Lemoore on King's River. Title, State Swamp Land. Owned by John Heinlen.

FISHER RANCH, about 800 acres; situated about six miles northeast of Visalia well improved and cultivated, abundance of water. Title, U. S. Patent. Owned by James Fisher.

WATERLOO RANCH, 800 acres; situated on Tule River, about eighteen miles southeast of Visalia; farmed and cultivated, choice lands, and well adapted to small grain. Title, U. S. and State Patent. Present owner, John W. Jones.

RIVERS AND STREAMS OF TULARE.

The county is blessed with numerous and very valuable streams which supply an abundance of water.

Four Creeks was the name that portion of the country was known by in primitive days. Seven Creeks would have been a more appropriate name, from the fact it would have included the entire number of streams running through the valley. There are Southeast, Outside, Deep, Cameron, Packwood, and Dry Creek, while on the north are the St. John and Elbow Creeks, making seven streams, so well arranged for the distribution of the mountain waters that settlers have utilized these channels for irrigating purposes. At a point on the Kaweah, known as the Rocky Ford, Messrs. Bacon & Crossmore expended a large sum of money in turning a portion of that stream into Packwood Creek, which during the repeated dry seasons had dried up.

KERN RIVER.

Kern River rises near the 37th degree north latitude, and runs due south in Tulare County and for more than a hundred miles, between two parallel ranges of the Sierra Nevada Mountains, before turning west toward the valley. It drains 2,000 square miles of mountain region, which in all ordinary winters are within the snow belt, but it often happens that during a very warm storm rain would fall in the winter-time upon more than one-half of all this area; so that one warm rain is liable to turn loose much of the water of several previous storms. This was the case in 1862 and again in 1868.

To shield the low land of Kern County from these extraordinary freshets, Haggin & Carr undertook to shove the waters of Kern River out upon the dry desert which skirts the eastern base of the Coast Range, and with that end in view constructed a monster levee some fifteen feet high, and about thirty miles long. It is believed to be much more possible to carry these waters to the west of Tulare Lake by the same method as the desert there is broader and smoother.

DESCRIPTION OF KING'S RIVER.

King's River, when we consider its size, position, and the area of the country within the region of perpetual snow which it drains, as well as that on the plains which it is capable of supplying with water for irrigation, together with the fact that it is not navigable, nor a tributary to any of the rivers which are, may justly be regarded as one of the most important and valuable rivers in the State.

It has a drainage area of about 1,855 square miles in the Sierra Nevada Mountains and foot-hills, where the river leaves the hill country and enters the Centerville bottoms, nearly half of which is situated within the snow belt.

It flows in a southwesterly direction from the mountains to Tulare Lake, and its general course is quite direct, with but few abrupt turns in its meanderings.

It has not a single perennial tributary from the foot-hills to Tulare Lake, a distance of about sixty-two miles; and the only stream of any note which empties into it is Wahtoke Creek, on the left, just above Smith's Ferry.

CHARACTER OF ITS CHANNEL.

Where it leaves the foot-hills, all the water flows in a single, well-defined channel, while, in its passage through the Centerville bottoms, its waters are divided into several channels for a distance of about fourteen miles. There it is again all collected and confined to a single deep and tortuous channel, the bed of which is from sixty-five to twenty feet below the plains on either side.

Practically this portion of the river has no valley or bottom-lands, the high bluffs encroaching generally upon the margin of the river. Here and there the bluffs recede, and the river is fringed with a narrow belt of alluvial deposit, covered with a scanty growth of oak trees and vines. This condition is maintained to the head of Cole Slough, a short distance below the San Joaquin Valley Railroad, where its waters are again divided, the greater portion passing northward, down Cole Slough, and the rest along the old river channels spreading into a delta-like swamp between Tulare Lake and the San Joaquin River.

DESCRIPTION OF KING'S RIVER CHANNEL.

In the Upper King's River all the water during the different stages flows in a single well-defined trough or channel, with bottom and sides composed of large bowlders, intermixed with cobble-stones, coarse gravel, and sand, in such proportions and manner as to present a comparatively even and regular surface, which offers but little resistance to the free flow of water. This particular formation continues for several miles down the river, when the large bowlders disappear almost entirely, and the bottoms and sides of the numerous channels into which the river is divided are composed of large cobble-stones, intermixed with coarse gravel and sand. This latter formation extends for several miles further down the river, to a point about midway between the upper and lower end of the Centerville bottoms, where the large cobble-stones in turn disappear, and the river bed is composed of small cobbles, coarse gravel, and sand, which changes gradually until the lower end of the Centerville bottom is reached, where the material of which the bottom of the river channel is composed is almost exclusively coarse gravel and sand.

From this point clear through to Tulare Lake there are but few if any localities where anything but coarse gravel and sand is to be found in the river bottom, while the sides, particularly below the San Joaquin Valley Railroad Bridge, are composed of clay and sedimentary matter, intermixed with a gravelly alluvial deposit, which is unable to resist the abraiding force of the current of the river, especially in the bends and at high water, and is constantly being undermined, large portions of it frequently caving in.

HIGH WATER PERIODS.

King's River, like all the large rivers of the State heading high up in the Sierra Nevada Mountains, has two "high-water" periods in each year. The first usually occurs in December, after the rains have set in, continues through January, is known as the winter rise, and is caused principally by the rains. The second, which commences about the last of April or first of May, after the rains are over, and continues through June and part of July, is produced by the melting snow, and is of longer duration than the winter rise. The river generally keeps up between the two rises some one to two feet above its lowest stage.

After the second or spring rise, as it is usually called, the river gradually falls to the low-water stage, which it maintains through August, September, October, and a part of November, or until the winter rise sets in.

The time of the greatest demand for water for irrigation is fortunately during the winter and spring rises, when the river is capable of supplying, during ordinary years, all the water needed for the irrigation of lands at present prepared to receive it, and furnished with canals for its diversion and distribution.

THE TULE RIVER.

Tule River enters the valley in Tulare County, about eighteen miles from the southern boundary thereof, and its channel extends westerly down a plain sloping from twenty to two feet per mile, a distance of thirty miles, to Lake Tulare. The lands through which it runs are generally sandy; its bed is upon a loose deposit of sand, and its waters seldom reach far into the plain before being swallowed up in this great mass of dry detritus. In particularly wet seasons, and through the months of spring, when there has been heavy snow-fall during the preceding winter, Tule River water reaches Tulare Lake above ground for several weeks, or months even, at a time; but this does not occur sometimes for a series of years.

THE KAWEAH RIVER.

The Kaweah River enters Tulare County from the Sierra Nevada Mountains, and runs westerly to Tulare Lake. The county maps spell this name as it is here spelled, but a Spanish gentleman with our party declared that the proper orthography is Cahuilla, a word which signifies in the Castilian tongue, "Indian." The delta of this river commences, as it were, within the foot-hills, seeing that the mouth of its cañon is filled with detritus of its own production and depositing, for several miles above the edge of the plains, and the river spreads through the uncertain and obstructed channels of a swamp, almost before it has left its rock-bound course through a mountain cañon. Thus, although the Kaweah is a somewhat more reliable source of supply than Tule River, because it has a larger and a higher drainage area, yet a great portion of its waters are also lost in the depths of the sands, gravel, and light alluvial soil with which it has built up the plain for many square miles in front of its point of emergence from the mountains.

DELTA OF THE KAWEAH.

This is the Kaweah Delta. From the cañon above Wutchumna Point to Tulare Lake it is thirty-nine miles in length, falling in that distance from an elevation of 520 feet above low water in the ocean, to the plane of the lake, about 190 feet above the same level. In the upper portion its grade is at points as much as thirty feet per mile, alternated by comparatively flat and swampy tracts heavily overgrown with trees and underbrush. Near the lake the plain falls only two or three feet per mile, and without irrigation is dry and barren.

CHANNELS OF THE KAWEAH.

Down this sloping delta plain the Kaweah flood-waters find their way through eight or ten channels whose beds are upon deep sand deposits, particularly near the mountains, and which occasionally are lost altogether in some swampy tract—the waters partially emerging below into another channel under some other name. About half way down the plain from Cross Creek on the extreme north, to Outside Creek on the opposite border, the width of the delta is eighteen miles, but these channels approach each other lower down and enter Tulare Lake only about ten miles apart.

TWO GREAT FLOODS.

Since the settlement of the plains, and beginning of farming along King's River, there have been two great floods, the first occuring during the winter of 1861–62, and the second during the winter of 1867–68, being occasioned in each instance by excessive rain-fall during the winter months. During each flood the Centerville bottom was overflowed, and large quantities of driftwood deposited there. From the lower end of the Centerville bottom to a point a short distance above the San Joaquin Valley Railroad crossing, all the water during each of these floods was confined to the river channel. From the railroad crossing through to Tulare Lake, the country along the river on both sides was more or less flooded.

What is now known as Cole Slough, which carries a large portion of the waters of the river, was opened by the flood of 1861–62, and enlarged to its present size by that of 1867–68. The effect of diverting through this slough the greater portion of the water of the river during ordinary stages, and all during the period of low water, has been the gradual filling up of the old river channel with sand for several miles below the point of diversion, thereby reducing its carrying capacity, and at the same time producing an increase in the elevation of its flood line.

The flood of 1867–68 produced a rise in the river at the foot-hills of 17.5 feet above low water of 1878, while at the San Joaquin Valley Railroad Bridge it rose 17.3 feet, and at the Southern Pacific Railroad Bridge, or Tulare Lake, 14.8 feet, as indicated by the most reliable high-water marks of the flood that could be found.

Irrigation in Tulare County.

Only a few years ago it was the general impression that irrigation could not make any material improvement in the wealth of this part of the State. It was said in the first place that the plains were destitute of plant-food for the most of the vegetable growths the farmer hoped to raise by irrigation; and right well does the writer remember when many were of the opinion that fruit trees, Indian corn, and garden vegetables could not be grown on the plains from the simple fact that the soil was said to be destitute of food for such plants. Again, it was said the action of the water, under the influence of the sun, would destroy the substance of the soil; and another belief was that when water was put upon the land it would produce such an amount of chills and fever that people could not afford to live in the irrigated districts.

Gradually these errors have been exploded, irrigating ditches have been made to checker the land in every direction, cities have sprung up on these dry plains, and fields of waving grain meet the eye wherever any system of irrigation has been adopted, and the most delicious fruit to be found in the world is produced on these irrigated lands with the least effort; besides this, the health of the plains is nearly as good as it was before the days of irrigation. The people of this part of the State are fast getting over their prejudices against irrigation.

THE LACK OF IRRIGATION.

The problem of irrigation in this great valley is not yet clearly solved. There are irrigated farms which are wonderfully productive. There are twenty-acre homesteads and small farms covered with vineyards and orchards. But these are exceptional places. The great plains are not irrigated. The systems of irrigation which prevail are local. They belong to neighborhoods. No broad and comprehensive system has been established. Water-rights have been sold to go with land which convey more than four times the entire quantity running in the streams. King's River, Kern, Kaweah, and other streams send immense volumes of water into the thirsty plain. A great deal of this water is wasted, and a great deal sinks before it reaches Tulare Lake.

Enough water comes down from the western slope of the Sierra to irrigate the entire valley. Yet, under the hap-hazard methods of using water, it is doubtful if one-fourth of this area will ever be artificially watered. In some places in winter in the mountains the snow in cañons is fifty feet deep, in others five to ten feet. There are patches of open ground where the sun has full play. If there were no trees on the western slope of the Sierra, this great body of snow would go down to the plains early in the season, creating destructive floods, followed by the most desolating aridity.

IRRIGATION IN MUSSEL SLOUGH DISTRICT.

That portion of the Mussel Slough country which is now under cultivation by irrigation and supplied with water by the present canal system, is located almost entirely in Tulare County.

It is bounded on the north and west by King's River, on the south by the swamp and overflowed boundary line along Tulare Lake, and on the east by Cross Creek and the San Joaquin Valley Railroad, and contains 155,000 acres.

The general slope of the Mussel Slough country is from King's River, in a southwesterly direction, to Tulare Lake, and all of the canals and old water-courses and sloughs follow the slope of the country, and tend towards the lake, into which they discharge their surplus waters during the irrigation seasons.

The light, sandy, and friable nature of the surface-soils, together with the exceedingly porous character of the sub-soils, which permit to a remarkable degree the free passage of water, acting at the same time as a filter to retain all its silt and other fertilizing qualities, has rendered it possible, to the present time, to irrigate this entire district by what is commonly known as seepage or percolation.

As frequent or constant application of water, either by flooding or percolation, always compacts and hardens the soil, it is possible that at no very distant day the free passage of water by seepage will, to a great degree, stop, and render irrigation by flooding necessary over a large portion of the land where it is now accomplished by seepage.

CANALS OF MUSSEL SLOUGH DISTRICT.

Mussel Slough country is at present supplied with water for irrigation from King's River direct, and from the Kaweah River through St. Johns River and Cross Creek.

There are five canals which divert the waters of the former, and two of those of the latter, in all seven, which constitute the present canal system of this district.

The aggregate length of the five canals and their main branches, which take their supply from King's River, is 110 miles.

The aggregate length of the two canals and their main branches, which take their supply from the Kaweah River, is fifty-five miles.

For the first several miles along the channel of each canal no water is diverted for irrigation, owing to the fact that the beds of the canals are so far below the surface of the surrounding country as to render it impossible to raise their waters to the surface and divert them for irrigation.

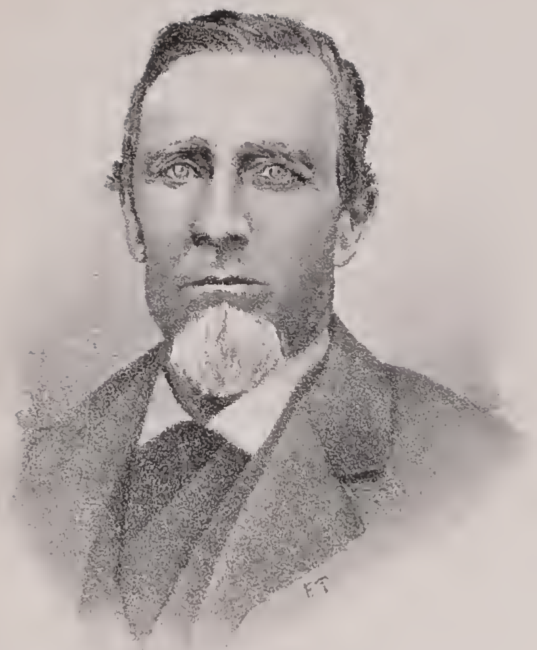
Allowing say four miles to each of the five canals, there are twenty miles of the most expensive portions of each canal, together with their headgates and dams in the river, which could have been avoided had a proper plan for irrigating this district been decided upon in the beginning, and all the interests and water rights united in building one large canal, leading out from the river at some point above the head of Cole Slough, or near the foot-hills.

The following table gives the number of canals, as well as showing the number of acres and kind of crops raised by irrigation in Mussel Slough country, during one irrigation season:—

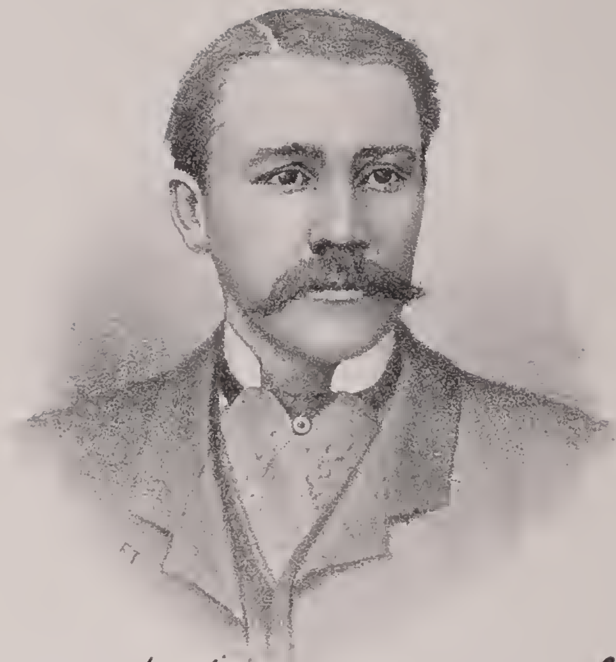
TABLE.

Names of Canals.	Acres in Cultivation—and in what Cultivated.										
	Wheat...	Barley....	Alfalfa....	Corn......	Beans......	Potatoes...	Vegetables.	Orchard...	Vineyard..	Forest....	Totals.
People's Ditch.......	9,159	985	1,173	547	151½	47½	31	87	5	72	12,340
Mussel Slough.......	1,270	255	56	75	....	4	4	3	..	..	1,685
Last Chance.........	6,798	2,133	2,330	282	142½	29	40	57	34	16	12,040
King's River........	5,063	587	342	15	5	...	41	15	12	...	6,084
Rhodes' Ditch.......	1,058	240	371	65	....	1	8	22	10	...	1,775
Totals............	23,348	4,200	4,272	984	299	81	124	184	61	88	33,924
Settlers' Ditch.......	5,684	919	616	217	14	14	28	52	16	71	7,779
Lake Side..........	3,571	607	773	290	51	1	5	25	18	63	5,564
Totals..........	9,255	1,526	1,389	507	65	15	33	77	34	134	13,343
Grand Totals....	32,603	5,726	5,661	1,491	364	96	157	261	95	222	47,267

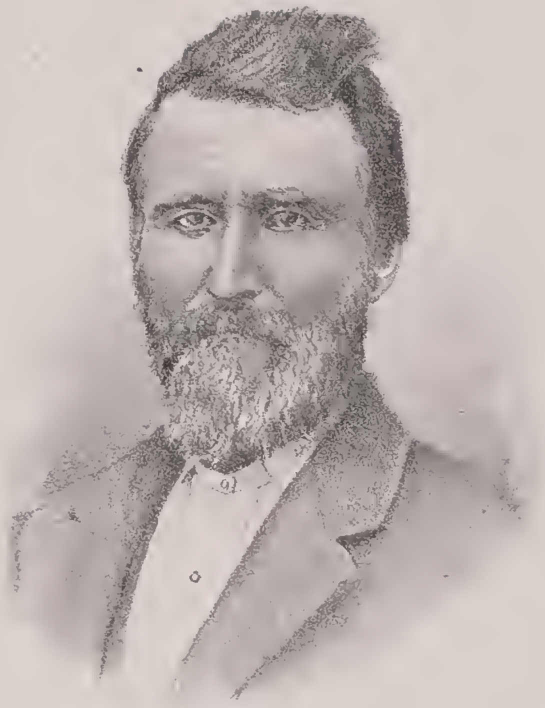
It will be seen by the preceding table that the total number of acres irrigated by the five canals from King's River (those first named in the table), was 33,924, of which there are 4,272 acres planted in alfalfa.



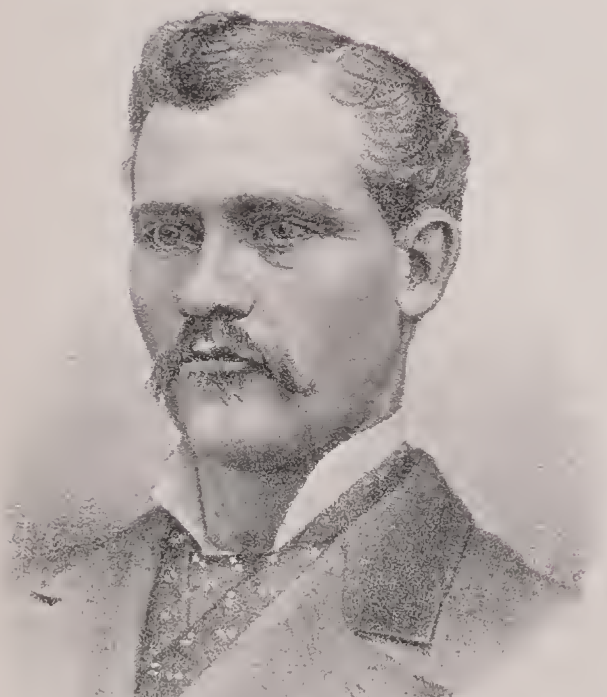
W. J. Osborn



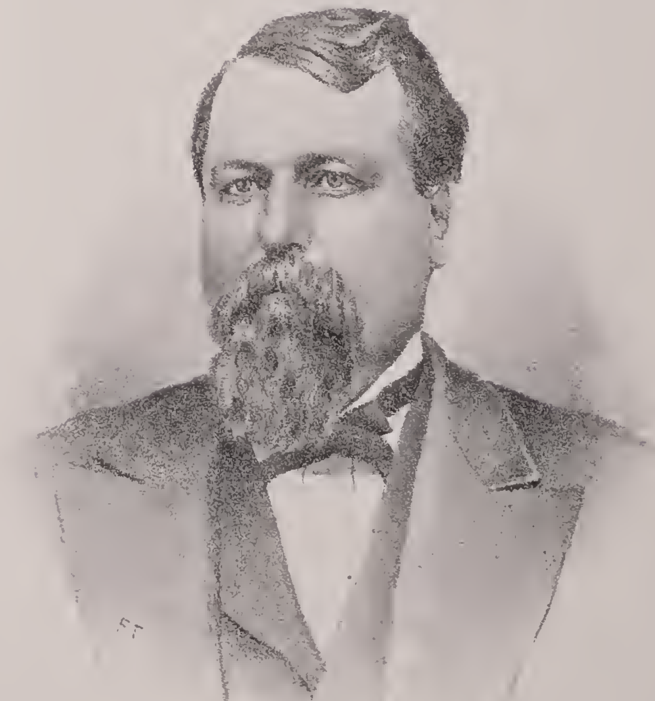
Wm H. Hammond



J. W. C. Pogue



S. M. Gilliam.



J. W. Loyd.

FROM PHOTOGRAPHS OF S. W. WATROUS. VISALIA.
ELLIOTT & CO LITH. 421 MONT. ST. S.F

The total number of acres irrigated by the two canals from the Kaweah was 13,343, of which there are 1,389 acres in alfalfa, making a total of 47,267 acres cultivated by irrigation in the Mussel Slough country during 1878.

Deducting the number of acres of land now under cultivation by irrigation from the 115,000 acres which are estimated as the total area susceptible of irrigation, we have 73,000 acres yet to be provided with water and the necessary facilities for its distribution. There is at this date probably only about 50,000 acres without irrigation.

PREPARATION OF THE GROUND.

In the Mussel Slough country, where irrigation is accomplished almost entirely by seepage or percolation, and where the general surface of the ground in its natural condition is more or less even, the irrigators have as a rule paid but little, if any, attention to the preparation of the land for cultivation by irrigation, although it is apparent in localities where the land is naturally even and uniform, that the whole surface becomes more evenly and uniformly wetted up, and the crops therefore are also, in a corresponding degree, found to give a more satisfactory average yield per acre.

That portion of the Mussel Slough country which has been under constant cultivation since the introduction of water into the country for irrigation, has, by the frequent plowing and harrowing necessary in the preparation of the ground for seeding and the cultivation of the crops, become, in a great degree, as smooth of surface as is probably necessary where flooding is not resorted to for the purpose of watering the crops.

COST OF WATER AND PRICE OF LAND.

In all cases where the irrigators own the canals themselves, the entire quantity of water in each canal available for irrigation is divided into as many parts as there are shares of stock in the company.

The cost of water to persons who purchase it from the canal owners is from $1.00 to $1.50 per acre for the irrigation season.

The cost of distributing ditches is from 50 cents to $2.00 per acre.

The cost of plowing and preparing land for sowing is from $1.25 to $1.75 per acre.

The cost of harvesting, including stocking, is from $1.50 to $2.00 per acre.

The yield of wheat is from twenty to forty bushels, and of barley from thirty-five to fifty bushels per acre.

The value of land not adapted to irrigation is valued at from $1.25 to $2.00 per acre, while the land capable of being irrigated is worth from $5.00 to $25.00 per acre.

EFFECT OF IRRIGATION ON SOILS.

Irrigation in the Mussel Slough District always compacts and hardens the soil, especially when the water is applied by flooding, and sometimes to a very inconvenient degree. Of course land is softened for the moment by watering, though in drying it becomes harder than before.

It is customary in the Mussel Slough country, when water can be got to irrigate the ground after taking off a summer crop, in order both to soften it for plowing for autumn sowing, and to hasten the sprouting of the winter grain sown upon it.

In localities where the soil is a light, sandy loam, and irrigation is accomplished entirely by seepage or percolation, the original characteristics and fertility of the soil seem, as far as the experience in this section goes, to remain in a great degree unchanged.

There are tracts of land, however, the subsoil of which is so thoroughly impregnated with alkali as to render the surface hopelessly barren.

In some sections, where the surface soil is practically free from alkali, but with the subsoil strongly alkaline, and where it has been under cultivation and irrigated by seepage for several years, it has become so highly charged with alkali as to be unfit for profitable cultivation by irrigation.

The alkali land is usually covered with a dense growth of alkali weeds and salt grass, which are unfit for any use to either the stock-raiser or farmer.

All south of Tulare Lake, and a large portion north of the lake on the west side of the great basin, may be classified as non-irrigable land, not only on account of the absence of a sufficient water supply, but by reason of the general unfitness of the soil for cultivation by irrigation. In this section are perhaps 300,000 acres.

CLAIMS AND CANALS.

Of the eighty-three filings of claims to water in King's River only forty-two are expressed so as to admit of interpretation into definite sums, even approximately. The remaining forty-one are so indefinite that their equivalent amounts cannot be estimated. Several of them set up a claim to all of the water in the river. There are claims filed in Tulare and Fresno Counties also, but these duplicate filings cannot always be recognized.

Of the sixty filings on record in Fresno County, and the twenty-three in Tulare County, there are twenty-eight in the former and fourteen in the latter in which the amount of water claimed is clearly stated in the language of the law relating to the appropriation and use of water.

There are among the filings in Fresno and Tulare Counties, which claim the water from King's River, several which do not state the amount of their claims, and others in which the data, referring to the quantity of water claimed, is not sufficiently complete to estimate or even approximate the quantity called for.

Several of the filings in Fresno County call for, in each case, all the water that King's River can supply.

There are at present about fourteen canals and ditches actually constructed and in use, which divert their water supply from the river, through separate head-gates at various points along its channels, from the foot-hills to Tulare Lake.

IRRIGATION FROM TULE RIVER.

The water supply from Tule River, small in quantity and uncertain as to time of presentation each season, is in a great measure lost in the deep sands of its bed and the surrounding country, soon after entering upon the plains, and, indeed, to some extent before it has left the foot-hill region.

The neighborhood of Porterville presents the principal region of irrigation. The soil is generally fertile, particularly well adapted to wet farming, and produces abundantly with very little water, if it can be had regularly at the proper times. Small grain is cultivated by irrigation to a greater extent in proportion to the total area watered than in most irrigation regions in the State.

So far as known, there are twelve canals or ditches which conduct water for irrigation from Tule River. They are all small, some of them capable of carrying only eight or ten cubit feet of water per second, and their aggregate capacity is about 350 cubit feet per second. The largest area of land irrigated in any one year was 4,000 to 4,500 acres; and, during the season of 1879, probably not over 2,000 acres were fully watered.

There exists a great necessity for a better class of works in this region. A consolidation of interests to take water out from the stream in about two or three good canals, at higher points than where most of the ditches get their supply now, would result in a great saving of the precious element, which, as said before, is lost in the sandy beds of the natural channels.

TULE RIVER.

Tule River goes dry in May or June. While it yet has water, and before it is dry, the ground is flooded, and further use of water is unnecessary. There is quite a difference between the irrigated crops and those which have had no water. The wheat grown on dry land is shrunken, and the yield is not as good, except in cases where the land has been summer-fallowed, when the crop is excellent. The whole country is well provided with ditches, and is so level that there is no difficulty in bringing water to any locality. Especially in fruit and grapes is the excellence of the soil attested. Fruit is of the finest quality. Grapes are large and sweet. It has been only some six or seven years since there were any incomers in that section to cultivate the land.

IRRIGATION FROM KAWEAH RIVER.

Irrigation commenced in the neighborhood of Visalia and Farmington at an early day in the settlement of the country; a number of small farm ditches were in use in the period between 1857 and 1860, and possibly some had been built several years before the earliest date mentioned. The principal irrigation from this source is now in the same neighborhood, though a part of the Kaweah water is conducted southerly, toward the town of Tulare; and the northern branch of the stream, known as Cross Creek, delivers another portion to two ditches which lead their supply to the Mussel Slough irrigation region.

Corn, field vegetables, alfalfa, and orchard produce are the principal crops cultivated, though small grain is occasionally raised by irrigation.

From the fact that there are natural swamps, it may well be understood that some lands are moist without irrigation; and such is the fact; but these dry out rapidly when cleared, and irrigation then becomes a necessity. The soil in this district is very variable in quality, the modern wash from the mountains brought down by the river being unevenly distributed over a plain of a different composition, the soil of which has evidently been deposited at an earlier geological period.

There are in all sixteen canal claimants to water from the Kaweah. Fourteen of these canals and ditches, located in the neighborhood of Visalia, have an aggregate capacity of 850 cubit feet per second. The largest area of land brought under cultivation by these works was 8,000 to 10,000 acres.

THE "76 CANAL."

The "76 Canal" is under the superintendence of Mr. P. Y. Baker, of Visalia. Under his management the work is rapidly approaching completion. The utmost economy and dispatch is observable in all his movements. Everything is so systematized that no time is lost nor mistakes made. The work is of the most permanent character, and it is of such a character that it will be a monument to the energy and enterprise of its projectors for centuries to come. J. S. Urton was the very competent engineer of this work, and great credit is due for his skill in planning this work.

The 76 Canal is taken out of King's River in Fresno County, some distance above Campbell Mountain. It has been completed a distance of six miles through the most difficult part of its line. It is 100 feet wide on the bottom and will carry a depth of four feet. It is kept on high ground. It will strike the Tulare County line near Smith's Mountain. The lands it is designed to irrigate are among the richest in the State. Large districts that have afforded nothing more than sheep ranges will be converted into gardens, vineyards, orchards, and alfalfa pastures that will rival the sections already brought under the influence of water. This enterprise will be a vast extension of the material resources of both Fresno and Tulare Counties. At the present rate its completion is assured at an early date.

There are employed in its construction 170 men and 300 horses. There are 70 scrapers employed. Besides the general interests it conserves, this enterprise is giving employment to a large number of persons that would otherwise be out of work on account of the continued drought.

The Artesian Belt.

"THE boundaries of the belt are," says the Tulare *Register*, "as yet, very uncertainly defined. From the attempts which have already been made to locate them it is quite evident that the belt has nearly the same general direction as the valley and the mountain ranges, *i. e.* from the northwest to the southeast, though it swerves to the westward somewhat faster than do the latter.

"The line of the Southern Pacific Railroad has been thought to mark the eastern limit of the belt with tolerable accuracy though a few very small wells have been obtained a short distance east of the track in the vicinity of Tule River. At Tulare City, and even two miles east of this point, wells have been bored which undoubtedly tapped the same stratum of water that supplies the flowing wells farther west, but the water only rises in them to within three or four feet of the surface and will not flow. There is a small flowing well two miles west of Tulare City, but it is very doubtful if one could be obtained much nearer.

"Of the western boundary of this belt nothing is known except that it certainly extends to the lake, and perhaps far beyond; and its northern and southern limits are alike unascertained.

FINE BODY OF LAND.

"This much, however, has been proven beyond question: There does exist a tract of as fine land as can be found in the entire State of California, or anywhere else, not less than twenty-five miles in length and from twelve to fifteen in breadth, upon which no one has failed to get artesian water who has made the trial for it, and it is extremely likely that as additional wells are bored in other localities, the limits of this tract will be still further extended. Indeed it is the general opinion that good flowing wells may be had almost anywhere in this vicinity by boring to a sufficient depth, but as no wells have yet been sunk much deeper than 800 feet, this is simply a matter of conjecture, supported by inferences based upon the configuration and character of the country.

"We believe we are perfectly safe in saying that within the limits of this belt can be found good land for 4,000 forty-acre farms, which, if we allow five persons to each family, will support a population of 20,000 people without crowding any one."

FIRST ARTESIAN WELL.

Some six years ago the railroad company bored for artesian water, two miles south of Tipton and within a few rods of the track. They obtained about a four-inch flow of water at a depth of 310 feet from the surface. The well is still doing nicely, and they have a large grove of trees among which are several thousand blue gums and locusts, besides fruit trees. The surplus water flowing from the well is run into a miniature lake, in which is quite a family of carp. The banks are covered with a rich green grass and shaded by the tall trees which encircle the water, making a very beautiful spot in the midst of a desert, where the weary traveler is welcome to come and enjoy the refreshing shade and listen to the songs of the many birds that inhabit the grove. A convenient little boat has also been provided for the enjoyment of those who are fond of such sport.

This "Tree Ranch," as it is called, is where nearly all the trees that are transplanted along the road on this division are taken from. The well upon this place is the weakest, with only one or two exceptions, that there is in this vicinity. The land here is mostly as level as a house floor, but there is an occasional piece of hog-wallow, but the wallows are very small and easily leveled. A good artesian well, such as most of them in this vicinity are, will irrigate 160 acres of land very easily, and the land after being once wet is very productive.

When it came to be known that with even so small a well the company had got forty acres of trees to growing finely, people began to perceive that even small wells were better than none.

THE ARTESIAN BOOM STARTED.

In the year 1881 a subscription was taken up among citizens, and a well bored on Paige & Morton's place three miles west of Tulare City. At a depth of 330 feet a flow of three and one-half inches was struck, and the boom in the artesian belt was started. Paige & Morton own in this tract some 3,500 acres. The first part of the ranch is reached about one mile from Tulare City. The well is seven inches in diameter and 330 feet deep. The water flows with a strong, clear stream. It is moderately warm, and flat and insipid, tasting somewhat like boiled water.

The soil around the well is a black sand loam and absorbs the water very fast, so that the quantity thrown out cannot be properly estimated by the casual observer. It is estimated that 800,000 gallons are thrown out every twenty-four hours. The machinery used for the boring is that used in boring ordinary wells. The men were engaged twenty-seven days in boring the shaft. The first 300 feet was through soil and sand of the usual kind encountered in boring wells in the valley. The last thirty was through blue, tough, smooth clay with the exception of a short distance in granite rock. When the auger went through, it fell two feet; afterward a sand pump was used, but encountered nothing but sand for some five feet. Evidently they have tapped one of the numerous subterranean rivers that underlie the valley. A quarter or half dollar thrown into the water is immediately rejected by the force of the water. We were even told that one more bold than his fellows risked a twenty-dollar gold piece in the crystal tide. It went down a short distance, and, when they thought it was gone, the water brought it up and threw it out.

IMPORTANT WELL.

This well was considered so important as to be visited by the Board of Supervisors, prominent citizens of the town, together with the representative of the press. The cost of the well has been about $700 dollars.

A vain attempt was made to cap the well with common pump pipe, the bottom of a Douglass' pump that was screwed on to the pipe forming the cap. The united strength of all that could get at it was not sufficient to hold it down. The water spouted out at the sides, and, in one case, rose almost in a perpendicular stream by the side of the pipe, higher than the man's head.

A. P. Cromley, the water-witch, or water "Professor" was about as happy a man as there was on the ground. He had found the spot, and foretold the number of feet very nearly, and that was no small honor for one man.

CHRISTENING THE WELL.

A. B. Du Brutz mounted the platform beside the well, and, after a neat, short speech, poured some of the contents of a bottle he held in his hand into the well, and christened it the Enterprise Well, discovered by A. P. Cromley.

The men drank the whisky, but every drop that was thrown on the surface of those clear waters was indignantly thrown out in the trough, and the well remains a temperance well to-day notwithstanding they tried to make it drink.

The throng came together again at the Pacific Hotel, where, under the management of Mr. Madden, proprietor of the house, a fine dinner was set, free for all. After the viands were duly discussed, speeches were made by Messrs. S. Sweet, Tipton Lindsey, E. Jacob, J. F. Uhlhorn, Judge Cross, A. J. Atwell, A. P. Cromley, and W. G. Spence. Mr. Cromley did not pretend to explain the mystery of the switch, but the power was there. Mr. Spence gave a short history of the well from the first call made upon him by Mr. Morton until its final consummation.

DUTY OF AN ARTESIAN WELL.

By this we mean the amount of land that a well will irrigate during the season. In attempting to give the reader a clear idea of what may reasonably be expected of a well, we are met by an unsurmountable difficulty to start with. There are so many contingencies to be met with that no rule of general application is possible. Some kinds of soil require four times as much water as others, and it is difficult to find one hundred acres of land anywhere that hasn't two or three different kinds of soil upon it. The soil may all be equally good, but it requires different treatment at the hands of the farmer, and different quantities of water. Then again much depends upon the condition in which the land is in. If it is cut up into small checks, with ridges thrown up around each one, and they are properly leveled so that the water can be let into one check at a time, and flooded completely over it, without having to put on twice as much as is needed in order to have the high spots wet up, perhaps the same amount of water can be made to do double the duty it otherwise would do.

NO DEFINITE RULE FOR IRRIGATION.

After the first year nearly all land requires less irrigation than during the first season. Thorough cultivation and pulverization of the soil also makes a great difference in the amount of water required. Another difficulty in the way of giving a definite rule is found in the fact that our farmers are mostly new to the business, this being the first season that they have had their wells.

Notwithstanding all of these contingencies, if the ground be well prepared, the water well husbanded, and the crops diversified so that all the land will not require water at the same time, a well with a three and one-half inch flow will furnish all the water needed for 160 acres of land after it has all been well irrigated one season.

On some ranches where the soil is not too sandy, and is underlaid with hardpan at a depth of three or four feet, the same amount of water may do double that duty, while on other farms having a light, sandy soil, with "no bottom," it might find half that duty sufficient to keep it busy. But it seems to be the almost universal opinion among our irrigators that, take it one year with another on old ground, one well to each 160 acres will be amply sufficient.

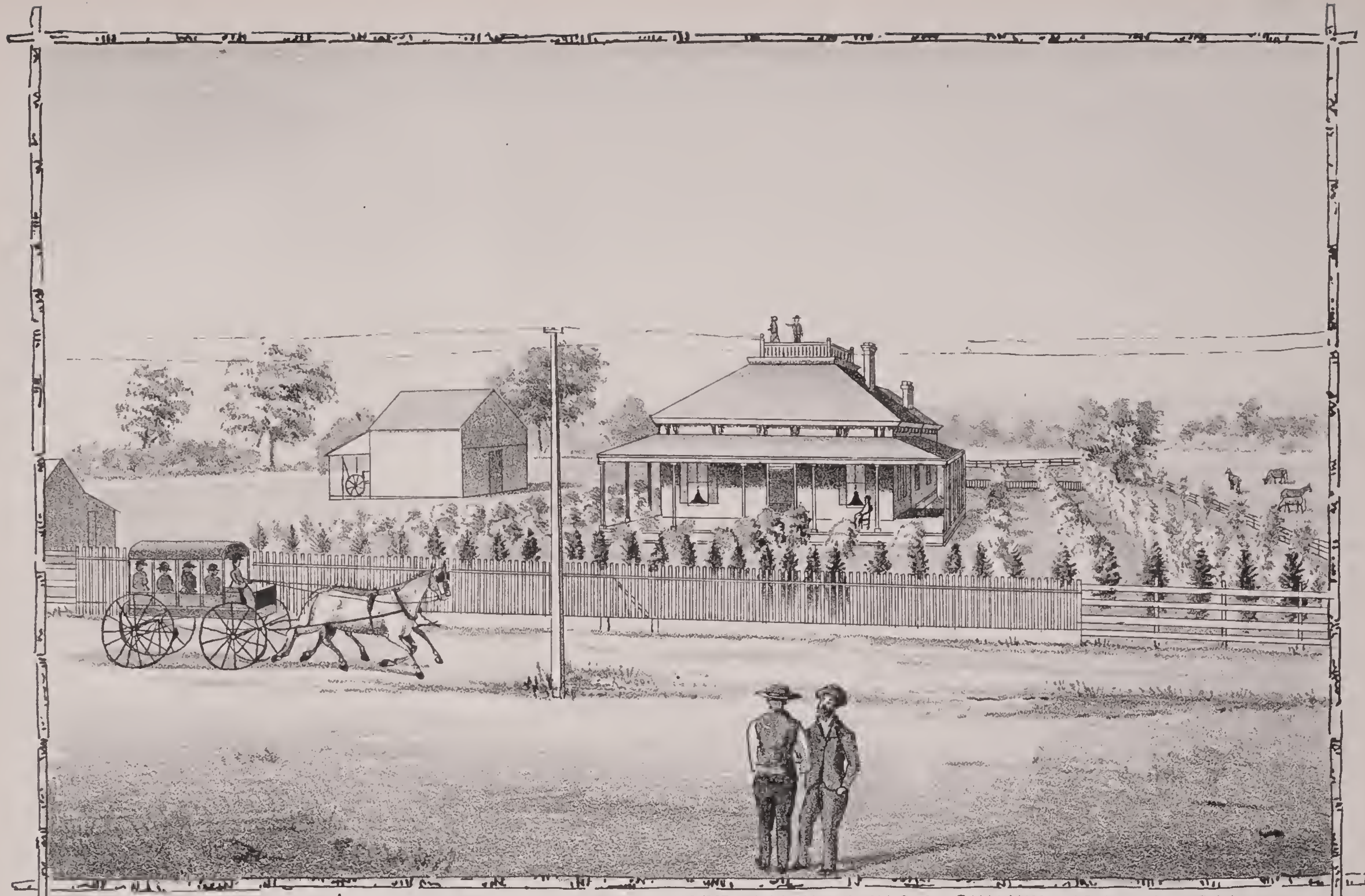
MATTER TAKEN FROM AN ARTESIAN WELL.

Pieces of charcoal, nut shells, and wood were taken from an artesian well being bored near Tulare, at a depth of 320 feet. The wood had the appearance of redwood. The nut shells looked like hickory or hazel-nuts. The charcoal was from some kind of light wood.

DIAGRAM OF AN ARTESIAN WELL.*

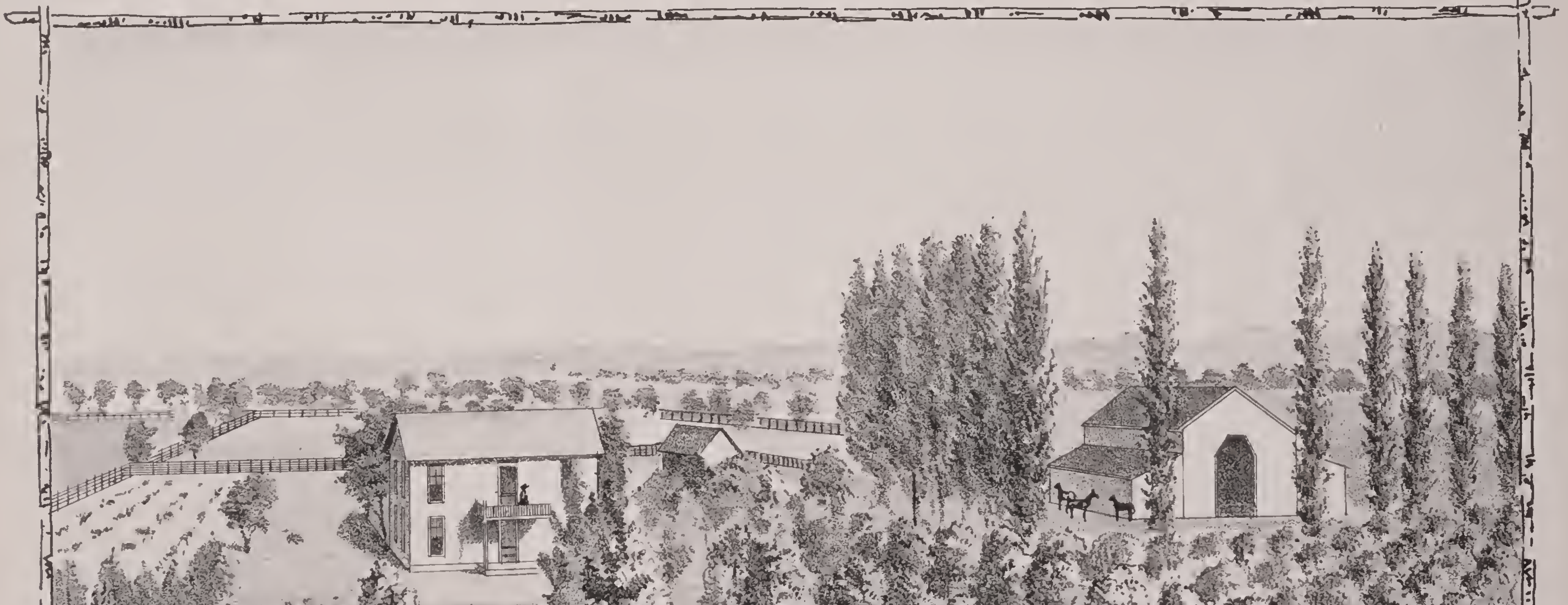
DEPTH. 297 feet.	CHARACTER OF VARIOUS STRATA.
2 feet.	Surface soil and sandy loam.
98 feet.	This space passed through was composed of fine sand streaked with thin layers of clay soil. The sand was similar to the sand of the plains.
1 foot.	A layer of solid "hard-pan."
95 feet.	In going through this strata it was found to be composed of various kinds and qualities of sand from "quicksand" to coarse gravel.
101 feet.	This layer was a compact mass of hard blue clay, such as is formed from the decomposition of granite and other rocks. After passing through this a flowing well was obtained.

* The cost of boring this well was $457.



ALEXES GODEY'S RESIDENCE, 19 TH. ST. BET. BAKERSFIELD & SUMNER, KERN CO. CAL.

ELLIOTT LITH. 421 MONT. ST.



RESIDENCE & HOME OF GEO. O. KINNE, 16 MILES WEST OF BAKERSFIELD, KERN CO. CAL.

ELLIOTT LITH. 421 MONT. ST.

TULARE COUNTY ARTESIAN WELLS.

During the two years following, artesian well boring was inaugurated and wonderful results have been obtained and a great impetus given to artesian irrigation in the vicinity of Visalia and Tulare City. For the information of those interested we give below, taken from the *Delta*, a list of some of those owning artesian wells in this county, with the depth, size of pipe and flow.

	DEPTH IN FEET.	SIZE OF PIPE.	FLOW IN INCHES.
T. Bacigalupi	340	5	½*
Jeff. Jaynes	382	8	¾
Wm. Blankenship	385	7	½
Uhlhorn & Maples	448	7	4
" "	389	7	3½
Sol. Ephriam	324	7	4
John Creighton	366	7	3½
" "	326	7	3½
C. Knupp	372	7	2½
B. F. Smith	340	7	3
Castle	418	7	4½
"	422	7	4½
Jas. Mitchell	386	7	4½
" "	355	7	6
E. M. Dewey	308	7	4
Geo. Mead	344	7	3
D. O. Harolson	390	7	4
M. M. Burnett	336	7	1
Dudley Evans	370	7	3½
I. Burnett	355	7	1¼
R. T. Priest	398	7	1
Lemuel Pierce	300	7	2½
Paige & Morton	330	7	3½
" "	332	7	1¾
Woods Bros.	472	7	3½
John Allen	352	7	4
Lee Weaver	340	7	2
A. P. Cromley	320	7	3½
Michael Premo	460	7	1½
Geo. Bertch	480	7	2½

Since then there have been between seventy and eighty good flowing wells obtained in this belt, and not less than ten or twelve boring outfits are now at work constantly sinking new ones.

ADVANTAGES OF ARTESIAN WELLS.

"It is claimed by men who profess to know," says the *Delta*, "that artesian wells possess many advantages over canals for watering stock and for irrigating small farms or plots of land. For watering stock they can be located in the most convenient place, whereas if a ditch is run expressly for stock purposes it is often inconvenient to run it in the most desirable locality. For irrigation they claim that it is cheap, economical and never failing. The above list does not include all the wells that are bored.

"Among the advantages of an artesian well are the following: When once it is bored, the value of the land it is on is enhanced more than the value of its (the well's) cost; it is one's own, and the water can be used whenever and wherever desired; no neighbor, ditch superintendent or any other person can have aught to say in the matter; there are no assessments to pay; there is no worrying about the failure of crops; and as far as known yet, the owner of a good well is independent of the dry seasons.

"W. G. Spence, of Oakland, and B. F. Mull, of Tulare, have sunk all the wells in this district. The wells will irrigate from twenty to one hundred acres, owing to the nature of the soil and flow of water. The average cost of the above list of wells is $525. It will be noticed that the depth at which water was struck is very uniform, indicating a wide artesian belt in this county.

"Whenever water has been found in sufficient quantity the result has been eminently satisfactory. The cost of boring wells has been low, and the flow of water inexhaustible. Particularly has this been the case in Tulare County. Nowhere in California is the geological formation so favorable to artesian well boring. Water is found at a remarkably slight depth, and in every instance has been satisfactory in the matter of flow and permanency."

ARTESIAN WELL DESCRIBED.

The following well-written discription of the artesian wells is taken from the *Tulare Register*:—

An artesian well consists of a small hole sunk into the earth, through which water rises from subterranean sources nearly to or above the surface of the earth. Those which rise above the surface are called "flowing wells." Artesian wells are not a "recent invention." They were known ages ago to those sedate old fogies whom we call the ancients, and even the heathen Chinee used them in the "Flowery Kingdom" before America was discovered by Columbus at any rate, if not before it was discovered by the mound builders. Countries differ from each other in the nature of their artesian wells, and the manner of procuring them, as widely as they do in politics and religion; but it is only with the wells in Tulare County that we now have to deal.

MANNER OF BORING.

In this portion of the State no stone is encountered in boring wells. There is nothing that offers more resistance than a stiff clay, and for this reason no such tools are required as are found necessary in other localities. The sets of tools most frequently met with are hand tools. They consist of a half round auger, fastened to the end of a twenty-foot pole or piece of gas pipe, and worked by two men by means of a cross handle that can be slipped up on the pole as fast as the auger goes down. As the well deepens, and other poles are needed, they are coupled together in the same manner as gas pipe. When the auger has been filled, it is hoisted with a wire cable and a horse power. When working in sand and water an instrument called a sand pump is used. This consists of a tube eight or ten feet long, in the bottom of which is a large valve. By churning this sand pump up and down it soon fills and is hoisted to the top. This is rather a slow process, and other means have been resorted to to enable parties to bore with greater facility. There are now three hydraulic machines in the neighborhood, which it is hoped will be an improvement on the hand tools. These machines use boring rods made entirely of gas pipe, but they only use the auger to stir up the sand and water into a thin mud. By forcing a stream of water down through the gas pipe, they force the mud and sand up outside, between the gas pipe and sheet iron well casing, and the casing is shoved down as fast as the auger descends by a couple of hydraulic jacks. The hand outfits shove their casings down with long levers.

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*"A half-inch flow," means a depth of half inch of water as it flows over the five-inch pipe in all directions.

These wells are all cased with heavy sheet-iron tubes made about the same length as joints of stovepipe, that are slipped together in a similar manner, only it is used double. Occasionally the casing gets stuck, and cannot be shoved down. When such is the case a pipe an inch smaller is sent down inside, and used the rest of the way. By this means it frequently happens that a well that was started with an eight-inch casing ends with a four-inch one. It usually happens that at least three successive flows are struck in boring an artesian well, each being better than the first. When one of these flows is reached the pipe may be sent on down to the next flow and perforated afterwards to let the first one in, or it may be stopped at that point and a smaller one sent down to each successive flow, just as the proprietor prefers.

COST OF ARTESIAN WELLS.

The cost of an artesian well is a thing that "no fellow can find out" until the work is done. The rates charged for the work are as follows: For the first 100 feet, $50.00; for the second 100 feet, $75.00; for the third 100 feet $100, and proportionate increase for each succeeding 100 feet. The casing costs from 35 cents to 50 cents per foot, and the owner of the well usually has to board three men while the work is being done, which takes from two to five weeks, owing to the number of accidents that happen during the process. The cost of a well complete will range between $500 and $700, depending upon the depth, number of accidents, etc. Some of the first wells that were bored cost a good deal more than that, but they are getting cheaper right along. The depth of the wells varies from 325 to 700 feet, according to locality.

THE FLOW OF WATER.

The water rises after a flow is struck, and runs over the edge of the pipe, in all directions, in a continuous stream, and the flow is measured by the depth of the water over the edge of the pipe. If the water flows over the edge of the pipe at depth of two inches, it is called a two-inch flow. The wells in this belt have flows ranging from half an inch, at the outside edge of the belt, to five inches in the best localities. A three and one-half-inch flow over a seven-inch pipe will probably discharge just about one cubit foot of water per second. Such a well would be considered a very good one, perhaps a little better than an average.

We give in one of our views an illustration of an artesian well after it is capped and sending up its pure crystal flood and covering the ground with a lake of clear water.

AMOUNT OF WATER AVAILABLE.

The *Tulare Register* in its able review of the resources of the county, says: "The supply of water for irrigation in Tulare County is ample, if some system be inaugurated that will utilize what we have to the best advantage.

"King's River, on the north, has a mountain water-shed of 1,855 square miles, and pours into the valley from the first of January to the last of July an average of 8,715 cubic feet of water per second, or enough to irrigate more than a million acres. This water has to be divided with Fresno County, but Tulare County is entitled to enough to irrigate all of her portion of the water-shed of that stream.

"The Kaweah River, further south, has a water-shed of 608 square miles, and discharges an average of 1,824 cubic feet per second into the valley through her multitudinous channels during the same period—the period of greatest need—enough to irrigate 291,840 acres of land if properly husbanded.

"South of this is Tule River, capable of irrigating 63,900 acres more. Further south still are the important streams of Deer Creek and White River that will irrigate their tens of thousands of acres. In addition to this we have our great artesian belt that has been fully described. There is an abundance of surface water at a depth of from eight to twenty feet, and nice little orchards are now to be found that owe their existence to water pumped by windmills, horse-powers and steam pumps.

"The whole southern half of the State of California is subject to occasional droughts, and this is particularly the case with the counties in the upper San Joaquin Valley. During any period of five years we may safely count upon two years during which there will be an abundance of rain to insure a crop, two years more that will produce about half a crop, and one that will be either a flood or a famine. Notwithstanding these apparently discouraging facts, there are many thousand acres of land in the county upon which money can be made by raising grain through any period of five years taken together without irrigation, and doubtless the same will hold true with the land upon the dry plains when a superior system of cultivation shall have been inaugurated. Subsoiling and summer fallowing will work wonders.

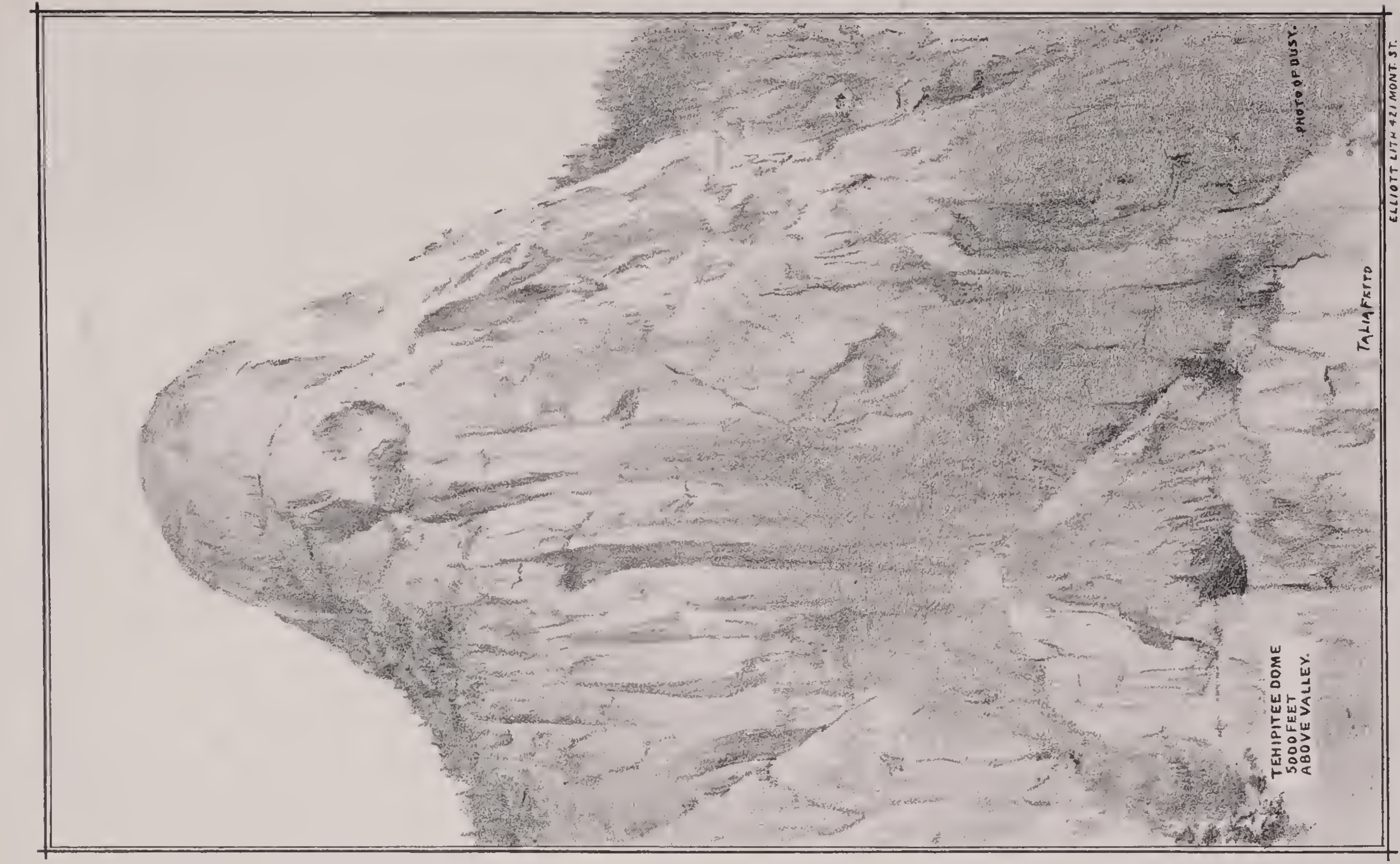
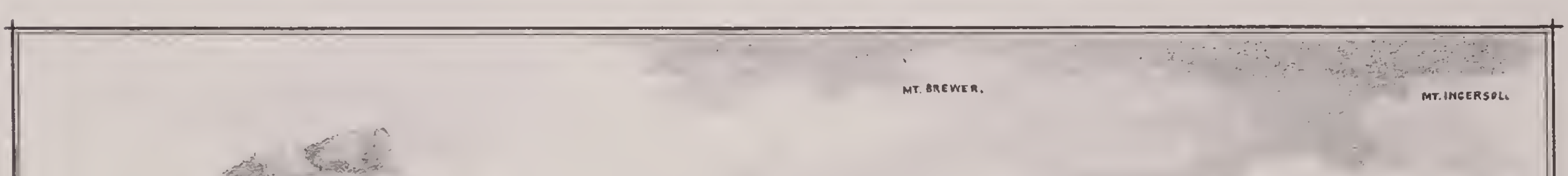


PHOTO OF DUSY.
TALIAFERRO

TEHIPITEE DOME 5000 FEET ABOVE VALLEY.

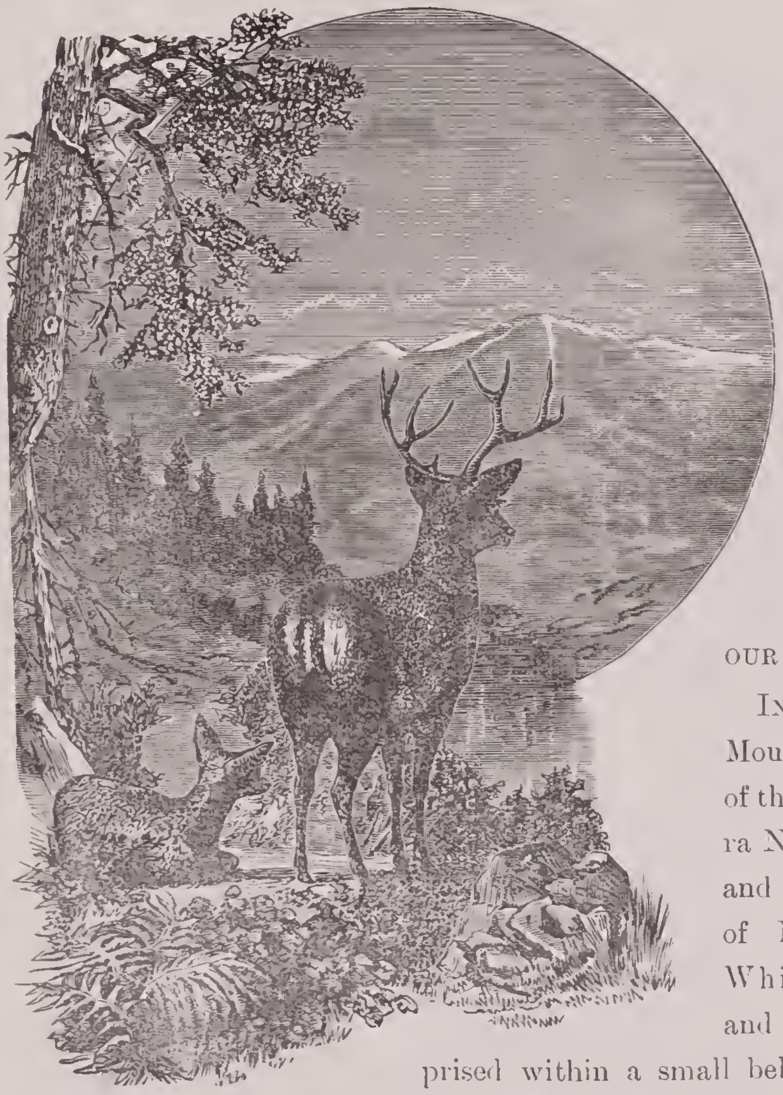
ELLIOTT LITH 421 MONT. ST.


MT. BREWER.
MT. INGERSOLL
TALIAFERRO
SKETCHED BY GUSTAVE EISEN

OLD WOMAN ON ALPINE CAMP GROUND.

ELLLIOTT LITH 421 MONT. ST.

Grand and Sublime Scenery of the Sierra Nevada.



OUR ALPS.

In the Mountains of the Sierra Nevada and west of Mount Whitney, and comprised within a small belt, can be found the grandest scenery in the world. Here at the foot of Mount Whitney, the highest mountain in the United States, are to be seen three of the grandest cañons or valleys on the continent. One of them, says Prof. Whitney, "rivals and even surpasses Yosemite in the altitude of its surrounding cliffs. The walls rise at various points from 3,500 to 6,000 feet above the base. At the head of the valley, occupying a position similar to Half Dome in Yosemite, is a wall nearly vertical, between 6,500 and 7,000 feet high."

BEAUTIFUL SCENERY.

In these valleys are the highest water-falls, and grand and sublime scenery in greater abundance than can be found elsewhere. Here are natural bridges and caves, extinct volcanoes to be explored, and living glaciers to be examined. The "big trees" of this section surpass those of any other locality, not only in size but in numbers. Nestled here and there in the mountains are lakes of clear, cold water, like settings of diamonds in the rock-ribbed mountains. No part of the Sierras combines so great a variety of grand and instructive features as does this region with its towering peaks, its perennial snows, its ancient fossils and other exhaustless stores of study.

ADVANTAGES OF OUR ALPS.

Here in our own California we have our Alps ready made, which can be visited in their deepest recesses in one-twentieth of the time and at one-fiftieth of the cost involved in a trip to Europe. Our Alps of the Sierra Nevada are as high in their highest part, too, as even the mountain king of Europe, Mount Blanc. Then they are immeasurably more accessible and far more secluded. Indeed the charm of our mountains is the ease with which one can get away from everybody in them. Guides and tourists do not meet you at every turn, as they do in the Alps. In one's *own* mountains, too, far more than in a foreign country, there is the feeling of freedom and home. Here you are continually finding new and grand scenes that have not been visited or pictured, and which constantly have a charm of freshness about them which it is impossible to find about those places of which much has been said or written.

JOHN MUIR ON CALIFORNIA ALPS.

How glorious a greeting the sun gives the mountains! To behold this alone is worth the pains of any excursion a thousand times over. The highest peaks burned like islands in a sea of liquid shade. Then the lower peaks and spires caught the glow, and long lances of light, streaming through many a notch and pass, fell thick on the frozen meadows.

Eastward, the whole region seems a land of pure desolation covered with beautiful light. The torrid volcanic basin of Mono, with its one bare lake fourteen miles long; Owen's Valley and the broad lava table-land at its head, dotted with craters; and the massive Inyo Range, rivaling even the Sierra in height,—these are spread, map-like, beneath you, with countless ranges beyond, passing and overlapping one another and fading on the glowing horizon.

A SCENE OF SUPERIOR GRANDEUR.

The eye roves around the vast expanse, rejoicing in so grand a freedom, yet returning again and again to the mountain peaks. Perhaps some one of the multitude excites special attention, some gigantic castle with turret and battlement, or Gothic cathedral more abundantly spired than Milan's. But, generally, when looking for the first time from an all-embracing stand-point like this, the inexperienced observer is oppressed by the incomprehensible grandeur of the peaks, and it is only after they have been studied one by one, long and lovingly, that their far-reaching harmonies become manifest.

GRAND MOUNTAINS AND GLACIERS.

Says John Muir of these regions: "There are giant mountains, valleys innumerable, glaciers and meadows, rivers and lakes, with the wide blue sky bent tenderly over them all. Lakes are seen gleaming in all sorts of places, round, or oval, or square, like very mirrors; others narrow and sinuous, drawn close around the peaks like silver zones, the highest reflecting only rocks, snow, and the sky. But neither these nor the glaciers, nor the bits of brown meadow and moorland that occur here and there, are large enough to make any marked impression upon the mighty wilderness of Alps."

Speaking of the "Palisades," he says: "The eye is first caught by a row of exceedingly sharp and slender spires, which rise openly to a height of about a thousand feet, from a series of short, residual glaciers that lean back against their bases; their fantastic sculpture and the unrelieved sharpness with which they spring out of the ice rendering them peculiarly wild and striking. Beyond them you behold a most sublime wilderness of mountains, their snowy summits crowded together in lavish abundance, peak beyond peak, swelling higher, higher as they sweep on southward until the culminating point of the range is reached on Mount Whitney."

THE ALPENGLOW.

"Now came the solemn, silent evening. Long, blue, spiky-edged shadows crept out across the snow-fields, while a rosy glow, at first scarcely discernible, gradually deepened and suffused every mountain-top, flushing the glaciers and the harsh crags above them. This was the alpenglow, to me the most impressive of all the terrestrial manifestations of God."

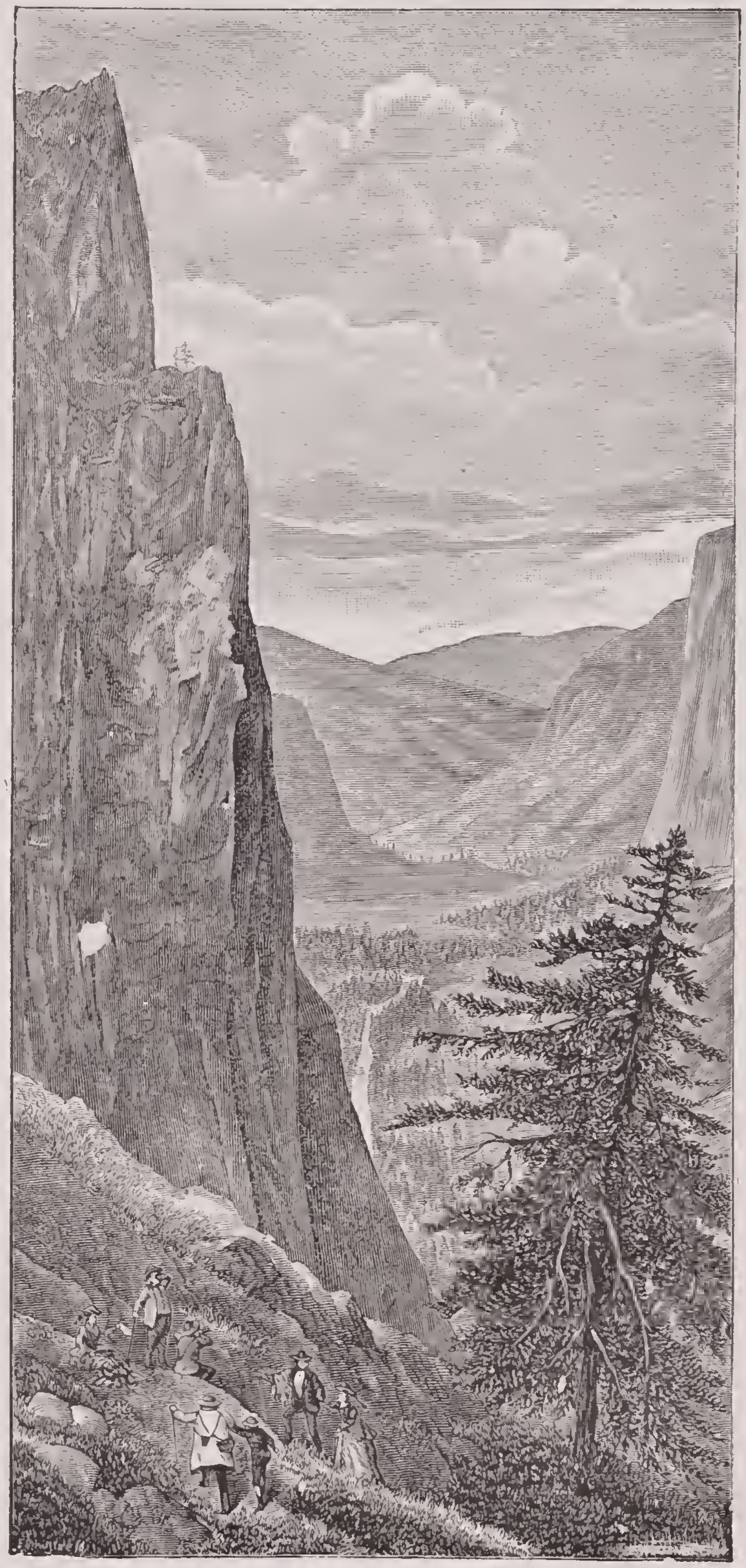
Of the effect of a trip to the Sierras, Clarence King says: "As often as one camps 12,000 feet in these mountain regions, the charm of crystal pure air, those cold, sparkling, glen-like lakes, tints of rock, and Alpine lake, the fiery bronze of foliage, the luminous though deep-toned sky combine to produce an intellectual and even a spiritual elevation."

THIS SCENERY EASILY REACHED.

A twenty-four hours' trip from San Francisco enables one to reach a region where he can see nature in her most impressive and gigantic forms, become a companion of solitude in its most inexcessible retreats, and witness mountain sunrise, sunshine and sunset alpenglow in their most peaceful aspects. It can be justly claimed that there is more change and rest to a dweller by the fog-laden air of the ocean in a three days' stay in the high Sierra than in two weeks in the Coast Range. The climate there is the same, or nearly the same, as that of San Francisco; but in these Sierras the elevation is great and the air very light and dry. It is a perfect tonic in its bracing effects. The change is complete, and the more complete the change the more complete the benefit. The world of the high mountains seems an entirely different one.

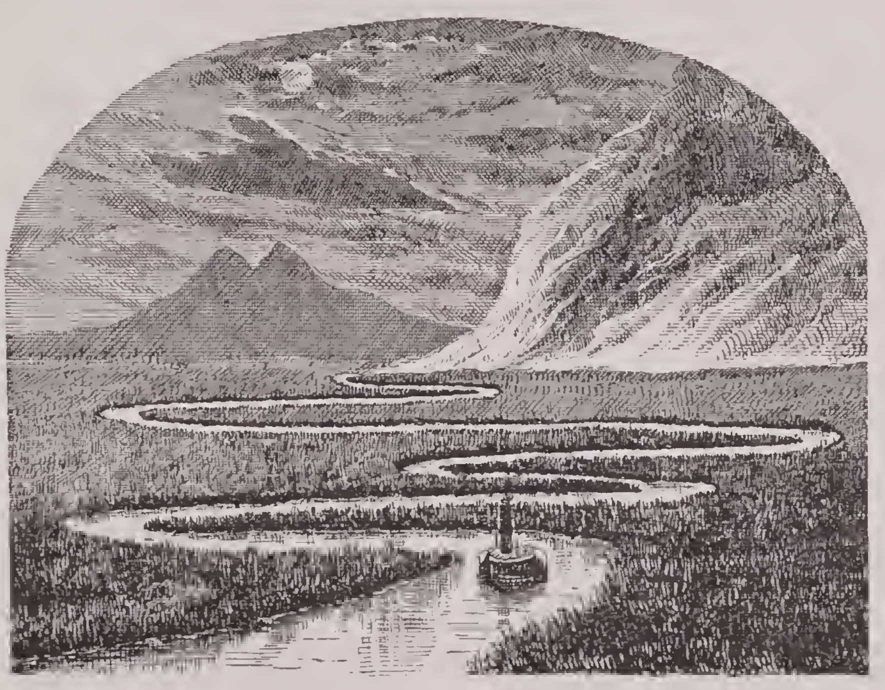
HOW TO GET THERE.

You take the 9:30 A. M., or 4 P. M. train at Market Street, and in the comfortable cars of the Central Pacific you pass along the edge of the bay and obtain glimpses of the many new manufactories just being started by the enterprising business men of Oakland. The cars keep near the shore and pass through tunnels and around sharp points where you obtain glimpses of the opposite shore; of Mare Island and the village of Vallejo; of Benicia, which in 1853 was the capital of the State; of the great ferry-boat which transports an entire train to the opposite shore where it speeds on its way overland. You pass Martinez, where tourists take private conveyance for Mount Diablo, 3,856 feet high, from whose peak can be seen the homes of at least two-thirds of the entire population of the State.



View of a Sierra Nevada Cañon.

Just before you reach Lathrop, the great San Joaquin River is crossed. In early days passenger traffic was exclusively by steamer, and as seen in the engraving. At Lathrop the train bears to the right, and enters the great San Joaquin Valley—a great level plain dotted with groves of grand oaks which relieve the solitude of the scene. Here you pass through vast grain-fields which seemingly have no end. Here may be seen the great header, *pushed* along by twenty-four horses, and cutting, threshing, and sacking the grain as it proceeds. Interspersed are large, sandy plains, the home of the tarantula, ground squirrel, and horned toad.



Mount Diablo and the San Joaquin by Moonlight,

As you pass on through the great valley, you see looming up in the cool morning air, the blue outlines of the beautiful Sierra Nevada, calmly and serenely viewing the San Joaquin Valley with a paternal and affectionate look, and seemingly inviting its inhabitants to approach and form an acquaintance.

HOW TO REACH THE SCENERY.

If you leave San Francisco at 4 P. M., you arrive at Fresno at midnight: Or leave the city in the morning and spend a few hours visiting the great vineyards and wine-cellars, and inspect the progress and results of irrigation in the colonies. In the morning, leave there with good horses and light wagon.

One day's travel brings you to the foot-hills, covered with oaks of mammoth size; they gently rise from the heretofore unbroken level of the valley. Hill after hill is passed, higher and higher ascend toward the snow-covered peaks above.

The trail leads through many a pleasant dell, secluded from the outer world by the neighboring hills, nearly all of which are under cultivation, and where the cabin of the rancher, who has forsaken the dusty atmosphere of the plains, to dwell here in peace and quietude, can be seen nestled at the base of some gentle slope, or beneath the wide-spreading branches of the live-oak. Here the path changes, the smooth hard-packed loam is changed to broken rocks and slate, and huge bowlders rise up on all sides. The oak is superseded by towering pine, and deep awe-inspiring cañons and gulches cross the path.

At the foot of the first high mountain is the little village of Toll House, thirty-two miles from Fresno. Here you can find good accommodations. Toll House is located within a circle of lofty mountains. Two miles north is a cañon through which passes Dry Creek in a series of cascades of 1,000 feet.

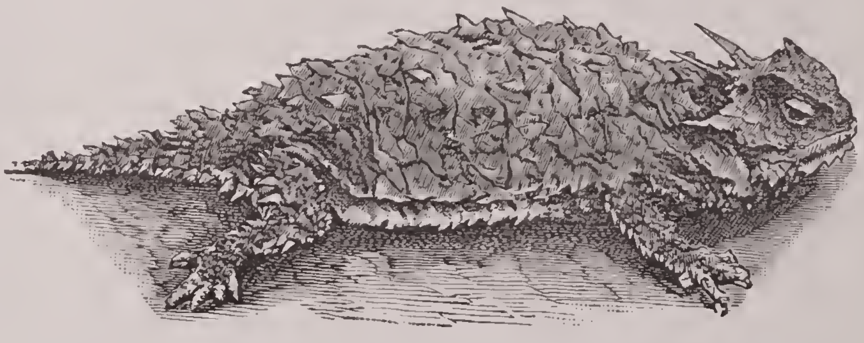
Markwood Meadows are located in the high mountains, about fourteen miles east of the Toll House. It is a beautiful plateau, level as a floor, and at the proper season is covered with a luxuriant carpet of green grass. A wall of stately pines environs them, and adds to the charming character of the meadows. For years past they have been a favorite summer resort for a number of families, who have built comfortable homes for their use. From Toll House you begin to ascend the steep grade leading to the saw-mills of Donahoo, and others, until you reach "Dinkey," sixty-one miles from Fresno.

HORSES AND GUIDES.

The next day Mr. Frank Dusy, the proprietor, will furnish guides and horses. He is perfectly familiar with the surrounding country and has given it a very thorough exploration. From this point it is five miles to the big trees, and twenty-five miles to the beautiful Tehipitee Valley by horseback. From here you go to the grand Paradise Valley or King's River Cañon, or to Redwood Cañon six miles distant, or on into the unexplored regions of the Sierra. Mount Whitney is about thirty-five miles distant, and also other grand mountains.

"DINKEY," THE RESIDENCE OF FRANK DUSY.

Dinkey is the place where horse-back travel begins. . We give an illustration of this stopping-place in the big tree grove. It is the summer residence of Frank Dusy, where guides and horses can be obtained for excursions in any direction. This singular name was given the place from a little dog named "Dinkey" who was torn by a bear in this neighborhood. Dinkey Valley itself is about 200 acres. Bear, deer and other game are numerous in any direction. Seventeen bears were killed there in the summer of 1882. During fourteen years of Mr. Dusy's residence there, he has killed some eighteen or twenty bears. Many grizzlies were found.



Horned Toad of the San Joaquin Valley.

Mr. Frank Dusy, the well-known sheep man and mountaineer, organizes parties of explorers and sight-seers to visit the headwaters of the San Joaquin, King's and Kaweah Rivers, whose sources are embraced in a circle of twenty-five miles in diameter. The country adjacent is probably the most rugged and yet the grandest and most sublime in the State. All who can overcome the numerous obstacles of such a trip will be repaid beyond words, by the glorious vision of a wonderful and awe-inspiring panorama.

Parties, with Mr. Dusy as captain and guide, leave Dinkey Creek, visit the big trees, and camp at night on the North Fork Meadows. The second day will take them to Dyke Peak and Collins' Camp at Crown Mountain. On the third day they will reach the farthest point practicable for animals—the Alpine Camp. From that point, the adventurous ones, carrying their blankets and provisions, will visit Mt. Goddard and the Palisades, whose elevation is upwards of 14,000 feet, thence south to the main ridge dividing the middle and south forks of King's River, visiting the beautiful lakes at their source, and finally campward, across the famous Tehipitee Valley, thence to Paradise Valley, Kern Canon, and the mountains.

(Mr. Dusy attends to his sheep which range the hills and valleys. He keeps from 13,000 to 24,000 sheep divided into bands of about 3,000. Two herders are required for each band, and a shepherd dog. A good dog is worth more than two men in taking care of sheep).

WASHINGTON GROVE.

This grove is located six miles from "Dinkey" on a small creek that empties into Dinkey Creek. The place is very wild. Here there are upwards of 100 trees exceeding thirty-six feet in circumference.

The largest, the General Washington, measures thirty-four feet and six inches in diameter, and has been about one-half burned off. The next larger measures seventy-three feet and six inches in circumference. This has also been burned and detracts from its size. The third in size is fifty-seven feet; the fourth, fifty-six feet; the fifth, fifty-three feet; the sixth, sixty-seven feet; the seventh, sixty-nine feet; the eighth, sixty-one and one-half feet, etc.

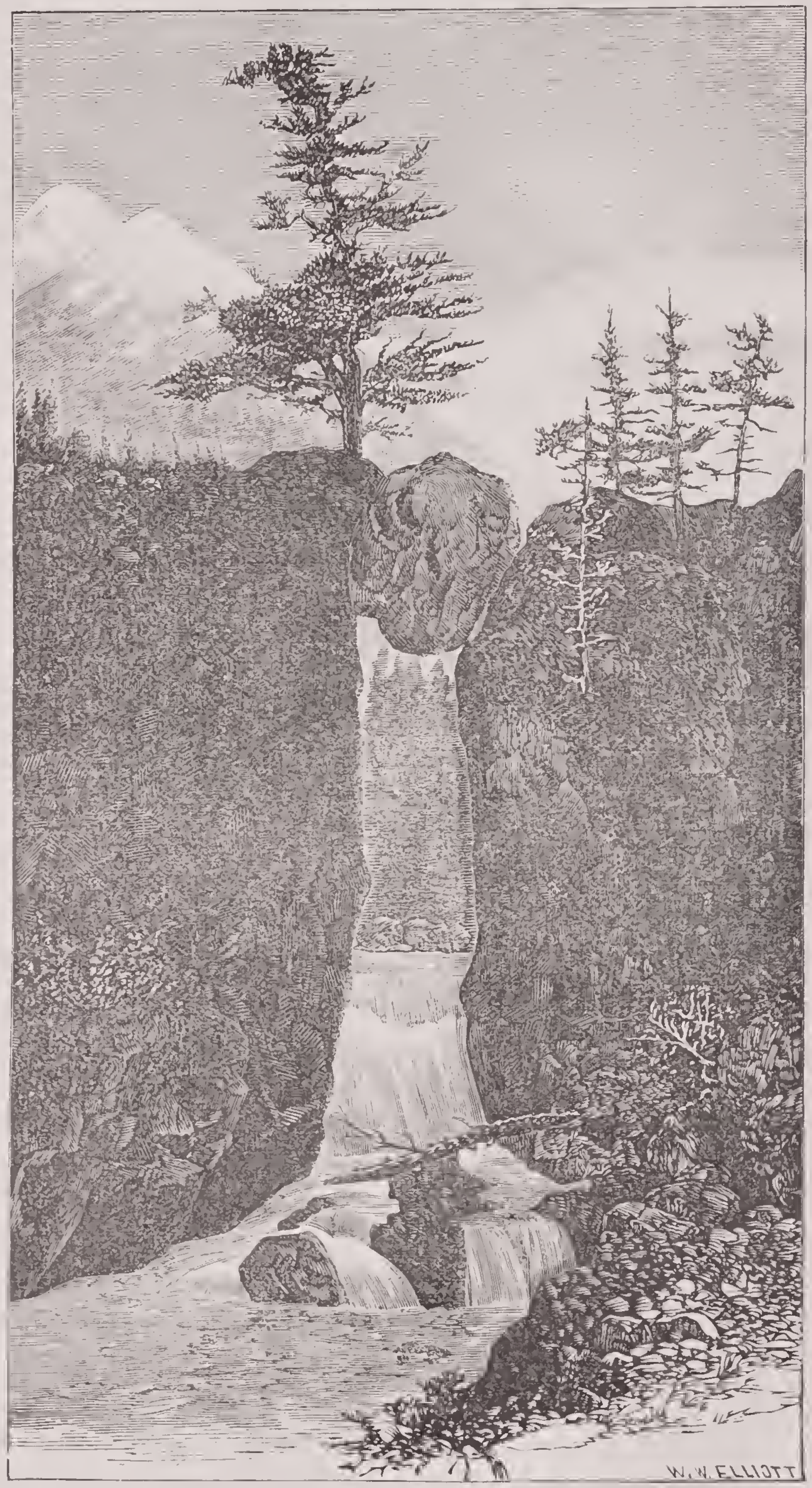
One of the fallen trees is 240 feet long and seven feet in diameter; another, the Fallen Monarch, is thirty feet in diameter, but not so long. The pine forests surrounding these trees are very dense and full of huge sugar and yellow pine trees.

Mr. Dusy having great influence with the Indians residing about there has prevailed upon them not to start any fires in the groves, and through this thoughtfulness of Mr. Dusy the groves are peing preserved.

Dusy and Markwood took accurate measurement of these trees. The largest tree measured $122\frac{1}{2}$ feet in circumference and estimated at 400 feet high.

Professor Whitney, State geologist, speaking of this grove, says:—

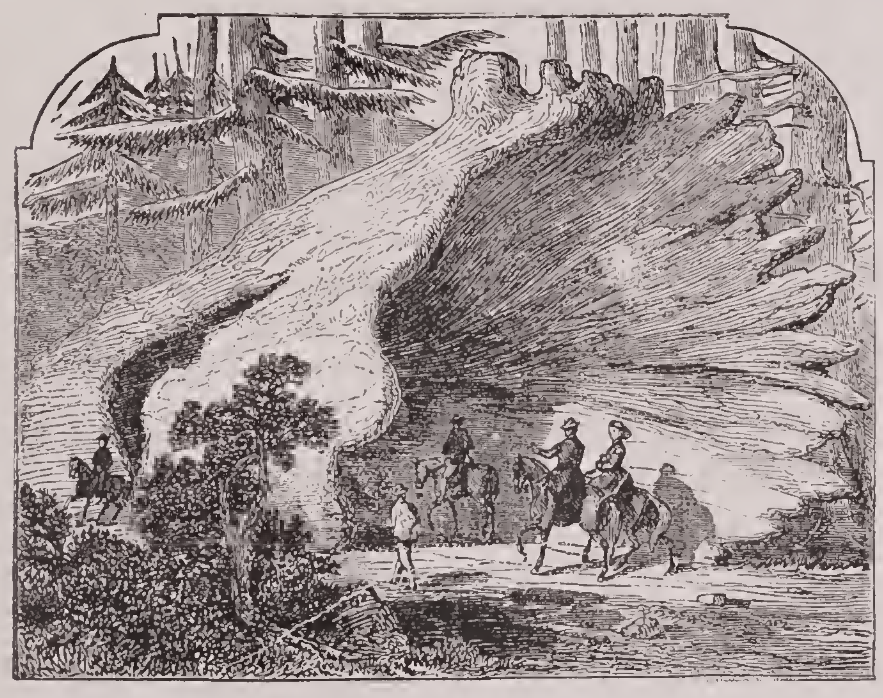
"The largest tree seen was 106 feet in circumference and 276 feet high. It had, however, been burned on one side and must have been originally from 125 to 110 feet. Another tree is prostrate and hollow. It is burned out so one can ride in on horseback for a distance of seventy-five feet and have room to turn around. At 120 feet from the base the tree is thirteen feet in diameter inside the bark. There is an immense number of big trees in this vicinity from ten to fifteen feet in diameter."



Bowlder Forming Natural Bridge Over Cañon 30 Ft. Wide and 100 Deep.

On the ground is one tree which has been hollowed out by fire. Three men can easily ride abreast in and through the hollow for about seventy-five feet, when they have the privilege of passing out of a knot hole. A man on horseback cannot touch the roof with his riding whip during this whole distance.

Judge E. C. Winchell says that the largest of the pines girt thirty feet and rise one hundred yards high. Amidst this zone are studded the isolated groves of mammoth trees. Like conscious emperors, they retire into the penetralia from the gaze of the vulgar herd. Those of Calaveras County, and of the northern edge of Fresno County, have already received the homage of the world. Those on the southern border of Fresno County are but little known, by reason of their remoteness. These trees vie with the others in size and stature and exceed them in numbers. Many, however, are decayed at the top and thus disfigured—from what cause it does not appear. The largest is thirty-five feet in diameter, and three hundred and fifty feet in height. Not far distant is one that has fallen and been hollowed by decay and fire. Three mounted men, who made their noon-halt near by,—armed cap-a-pie and followed by a heavily laden Sumpter-mule, who insisted on sharing their fate, rode, in single file—sitting erect and carrying their guns with the muzzles raised three feet above their heads—into the unbroken, blackened tube for seventy-two feet (measured with a lariat), contemplated at leisure the beauties of the situation by the light from the knot hole, size of a barn door; without dismounting or changing position, wheeled their animals with perfect ease, and rode out as they rode in.



Riding through the Fallen King.

COMPARATIVE SIZE OF TREES.

Prof. Whitney gives the measurement of the largest tree in the Mariposa Grove at ninety-three feet and six inches in circumference. Of the Calaveras Grove, the "mother of the forest," is given at ninety feet at the base. Thus it will be seen that the Fresno trees are far ahead in size. Having examined many of these wonderful trees we continue on the trip to examine still grander scenery.

SNOW PLANTS.

Proceeding from Washington Grove you pass through a dense forest of pine with beautiful snow plants pushing up their scarlet heads through the moist sod. You catch only occasional glimpses of sky and sunshine and surrounding mountains, passing into beautiful meadows filled with flowers of every shade and color (September) which fill the air with their perfume.

You breathe in the morning air so pure, so cool and exhilarating that it infuses new life into your being.

You cross the north fork of King's River, a stream thirty feet wide, and proceed to Oso Creek, and further on another named Clarenden, which runs into the creek which flows into Helms Valley, and with several others, forms the stream which makes the falls of King's River.

From this ridge you can see nine beautiful clear lakes in various directions. On the road, you pass over a beautiful natural bridge, formed by a rock falling into a narrow ravine, and lodging. The cañon is thirty feet wide, and the waters pass under the rock over which you pass.

On reaching the top of the mountain on the west side of Tehipitee Valley a grand sight presents itself. East is the crest of Sierras rising up like a huge wall of rocks in serrated peaks while at the rear or towards the west and south, the immense pine forests loom up stately and grand.

North is Tehipitee Dome Rock which rises up the side of the valley and forms a portion of its walls.

BEAUTIFUL TEHIPITEE VALLEY.

Here the scene passes from the grand to the sublime and awe-inspiring as you creep to the edge of the chasm and peep down, down more than 6,000 feet; more than a vertical mile into that awful canoñ.

The green silvered ribbon which stretches along the bottom is a river full 100 feet wide. The roar of the cataract at your left serves to give inspiration to the scene. You do not even now realize the immense depth of the cañon, nor the precipitous condition of its sides.

Mr. Ferguson, of the *Expositor*, and Frank Dusy, descended into this valley with great difficulty, occupying some four hours in getting down and seven hours in returning.

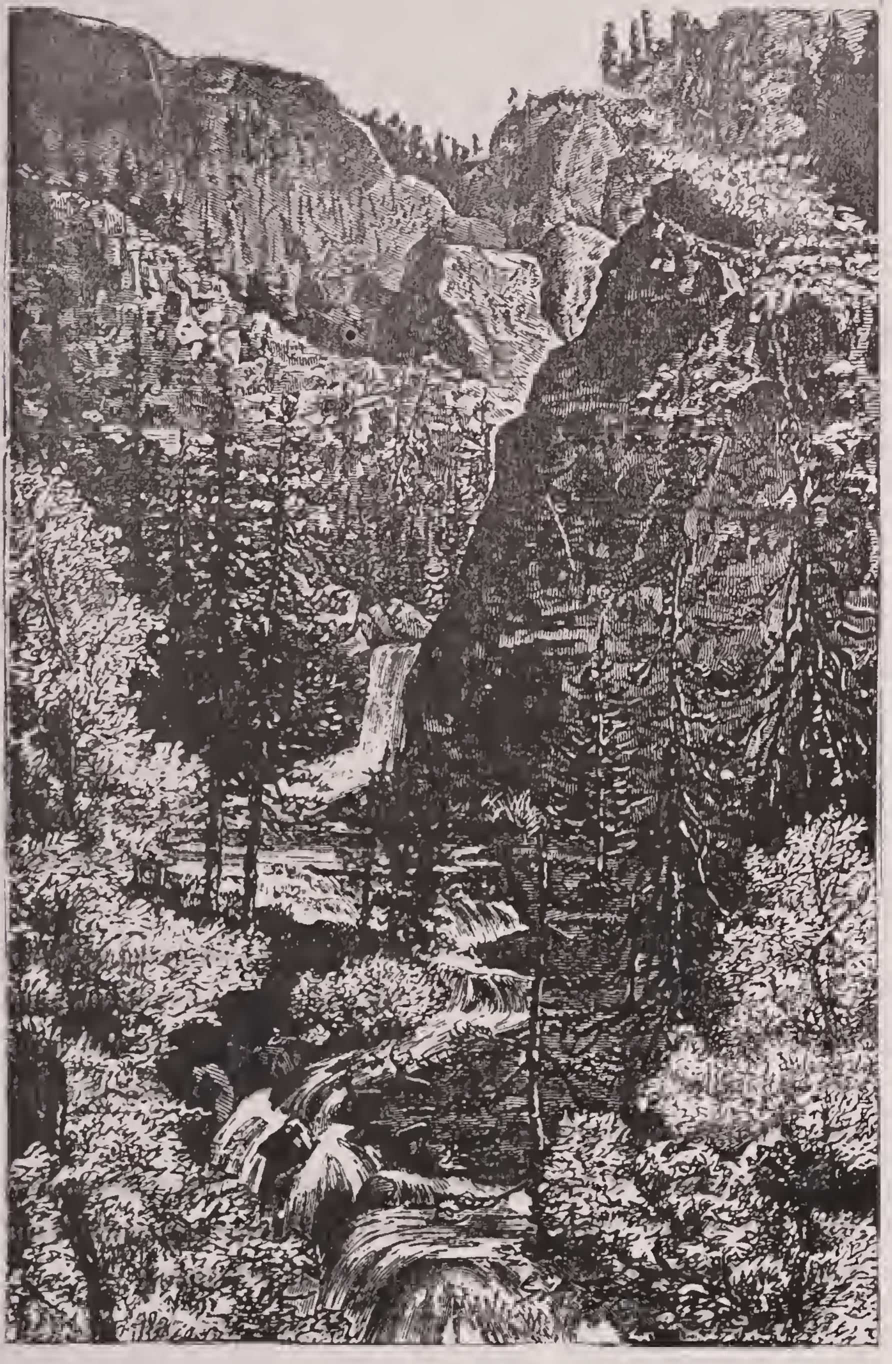
In reaching the bottom it seems as if you had left the surface of the earth and entered a mere crevice in its foundations, a fissure in the great everlasting rocks. The towering peaks and overhanging crags seem marching down upon you pressing and crowding until it seems a struggle to breathe. The forms of the various summits are varied and majestic, and vary in height from 4,000 to 6,000 feet.

STONE HOUSE.

When on the bottom you pass up the river a half mile, and reach "Stone House" a place used as headquarters, there being no house or hut in the valley. This house is formed by an immense block of granite sliding down over two huge bowlders and forming a complete room, open at one end, about ten by fifteen feet. It has a floor of clear white sand.

SILVER SPRAY FALLS.

From here a trip is taken to the "Silver Spray Falls" along up a branch stream. One cannot express their feelings at the sight of this truly grand view. The falls descend in three sections; the first fall is 500 feet, the second one is 600 feet, and the third is 800 feet. The water of the latter is separated into misty spray before reaching the bottom, and adds much to its beauty; hence its name, "Silver Spray."



Sierra Canon and Waterfall.

The valley narrows down at the upper end into a cañon whose walls are perpendicular, and its width only 200 feet, including the river. The walls are 2,500 to 3,500 feet high.

TEHIPITEE DOME.

Here also can be obtained a view of Tehipitee Dome. It is formed of solid granite, and rises to an elevation of fully 6,000 feet above the valley. Its sides are perpendicular to within about 1,000 feet of the top when the gradual oval begins, which forms a perfect dome in shape. Its name Tehipitee is given it by the Indians and means "high rock." This dome and Silver Spray Falls are near the center of the valley, and about one-quarter of a mile distant from each other.

DESCRIPTION OF TEHIPITEE VALLEY.

This grand and remarkable valley is about three miles long and averages from one to one and one-quarter miles wide. It was first entered by Frank Dusy, by the Indian trail. In 1878 there was discovered another entrance, or trail, which was unknown even to the Indians. Some miners found it. Afterwards Mr. Dusy entered the valley by it. He says the trail must have been made at least twenty years before by white men, as trees had been felled by axes and other evidences of white men's work were noticeable.

In the valley were found remains of a camp-fire, and a grave on which stood a pair of boots, mouldering and crumbling with age. This trail is passable by mules, but in some places very difficult.

DEPTH OF THIS VALLEY.

The distance down from the top or rim of the valley, is about 6,000 feet, (5,280 feet make a mile) and the valley runs east and west or nearly. You enter the lower or west end. The valley closes up at the outlet of the river into a narrow cañon. Mr. Dusy went down this some three miles, until he entered another small valley of some sixty acres covered with oak timber. It was a perfect little gem of a place.

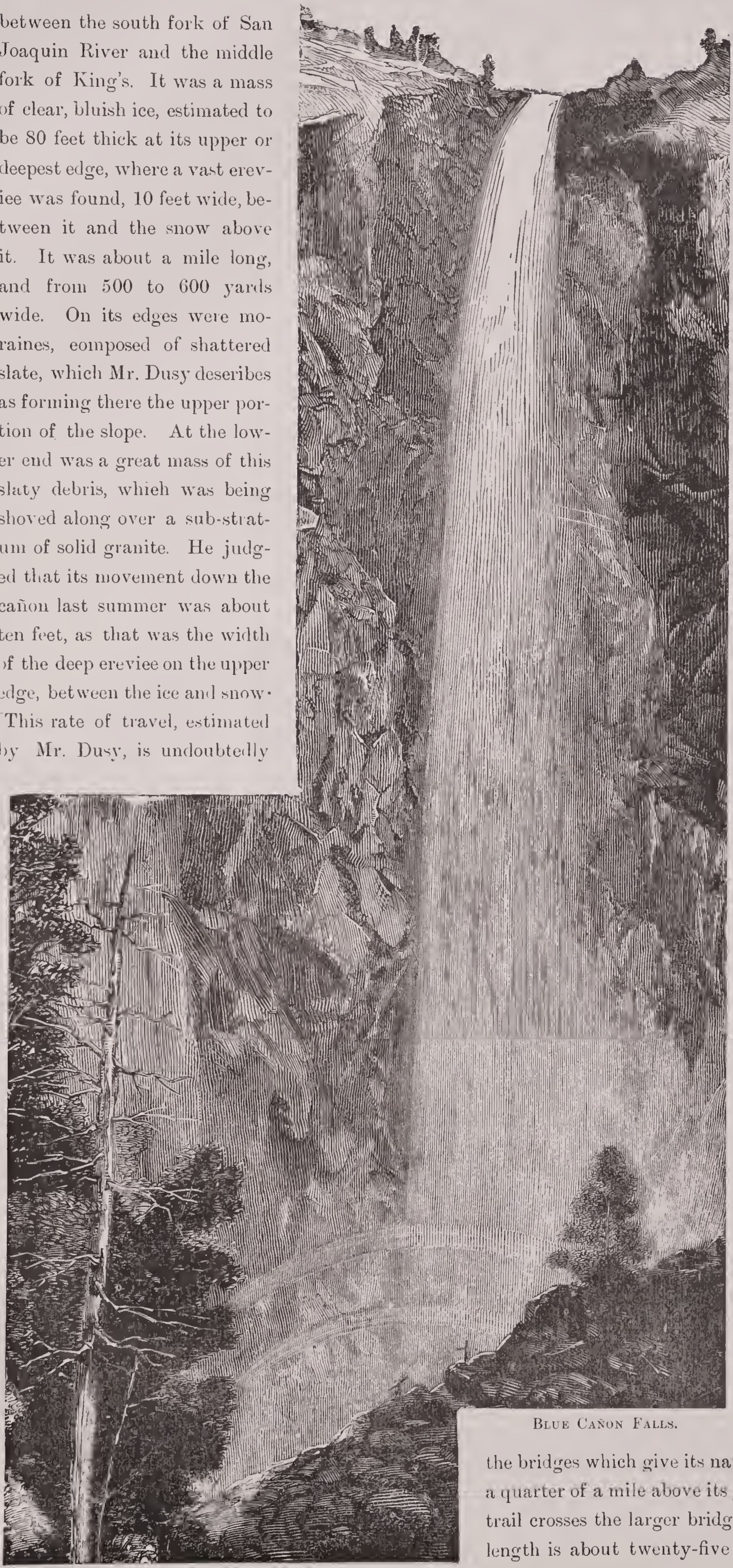
"Of the terrible grandeur of this valley it is hardly possible to convey any idea." In the valley are many grand cliffs, waterfalls and curious things that have as yet not been named or examined. It opens a wide field for those who love to explore and examine new scenes.

TRIPLE FALLS.

Beautiful and remarkable falls exist in the upper valley. The river divides into two streams which approach within fifty feet of each other, and each then falls 200 feet; the falls in descending approach and nearly touch each other and both fall into one basin about 100 feet in diameter; then the united waters, after whirling around the basin, drop 400 feet. The stream continues on and then a remarkable sight is seen. The water falls 180 feet into a small basin which has an opening or chimney which carries the spray upwards and above the falls in a cloud which is seen for a long way. From above you see only the vast column of spray rising out of this chimney or hole.

A LIVING GLACIER.

North of this valley is Mt. Goddard, which has been explored by Mr. Dusy. Few people have traveled as extensively in the Sierra Nevada district as has Mr. Dusy, especially in the regions surrounding Mt. Goddard (14,000 ft.) on the head-waters of the middle fork of King's River, and the south fork of the San Joaquin. He describes, as seen last summer by himself and party, what is more like an Alpine glacier than anything seen or heard of in our Sierra, except the living glaciers found by John Muir on Mt. Lyall. It was six miles east of Mt. Goddard, on what may be called the Goddard Ridge—the divide between the south fork of San Joaquin River and the middle fork of King's. It was a mass of clear, bluish ice, estimated to be 80 feet thick at its upper or deepest edge, where a vast crevice was found, 10 feet wide, between it and the snow above it. It was about a mile long, and from 500 to 600 yards wide. On its edges were moraines, composed of shattered slate, which Mr. Dusy describes as forming there the upper portion of the slope. At the lower end was a great mass of this slaty debris, which was being shoved along over a sub-stratum of solid granite. He judged that its movement down the cañon last summer was about ten feet, as that was the width of the deep crevice on the upper edge, between the ice and snow. [This rate of travel, estimated by Mr. Dusy, is undoubtedly too great, as we believe no glaciers of the Alps have so fast a rate.]



Blue Cañon Falls.

BLUE CAÑON FALLS.

Another remarkable falls in the region is called by Mr. Dusy "Blue Cañon Falls." The height of this fall is about 800 feet perpendicular, and falls directly into the King's River. This does not include any cascades; but one direct fall. The stream is some 30 feet wide. We give a very good view of this fall in our illustration.

MONARCH LAKES.

These two beautiful lakes lie at the foot of Miner's Peak. The upper lake is two miles in length by one in width, and is surrounded by lofty mountains, which give it the appearance of lying in a basin hewed from solid granite rock. The upper-lake is separated from the lower lake by a solid granite dam, to the right of which there is an opening, through which pour its sparkling waters down a steep precipice into the lower lake. The lower lake is about half the size of the upper one. Both are very deep, and their waters are as clear as a crystal. These lakes are situated in a very romantic locality, and the scenery on every side is very grand and picturesque. Far away rise the granite peaks and tall pines of the Sierras, while here and there you see other lesser lakes and glimpses of mountain meadows. These lakes must eventually become a popular resort to those in search of health, rest, trout and game. The distance from Mineral King to these lakes is about four miles, of access on foot or with animals. A short distance from these lakes are magnificent forests of pine, and mountain meadows, where may be found deer in abundance, and at certain seasons of the year the sportsman can have the brown and black bear for a target.

NATURAL BRIDGES.

There are several of these natural bridges about this locality. Two of them are on Natural Bridge Creek, and the bridges which give its name to the creek, span it at a point less than a quarter of a mile above its junction with Volcano Creek. The Hockett trail crosses the larger bridge. Large junipers grow on and near it. Its length is about twenty-five feet, its width at least twelve feet, and the height of its level surface is about twenty feet above the bed of the limpid stream that dashes wildly through the narrow opening beneath it. Height above sea level, 8,300 feet. The formation is the deposit from mineral springs containing lime. True, a dark basaltic lava exists in large quantities there, and for eight or ten miles down Volcano Creek, to its very mouth, where the basaltic columns are found.

A BEAUTIFUL TREE DESTROYED.

Messrs. McKiernan, Manley, and Hubbs, of Visalia, shipped from Tulare City a section of one of the largest, if not the largest, of all the big trees that have yet been discovered in California. The tree from which this section was taken was 111 feet in circumference at the butt, and stood 250 feet in height, at which elevation it was broken off. At the breaking off place in was 12 feet in diameter. These gentlemen had been at work getting this section ready for exhibition for nearly a year. This section was 14 feet in height, and was cut from the body of the tree twelve feet from the ground, the base being so irregular in form, the irregularity extending up from the roots, that it was inexpedient to take the lowest part. At the distance of twelve feet from the ground, the tree was twenty-six feet six inches in diameter, this being the diameter of the base of the section exhibited. The top of the tree, or stub, as it really was, was felled twenty-six feet from the ground, the labor of felling it occupying four men nine days.

This great tree made a noise when it came down that reverberated through the mountains like a peal of thunder. The work of taking out the section, which is exhibited, was then commenced from the top. The men dug the inside of the tree out with axes, these tools being the only ones that could be used to advantage. The wood was left six inches thick, exclusive of the bark, which ranges from three to ten inches in thickness.

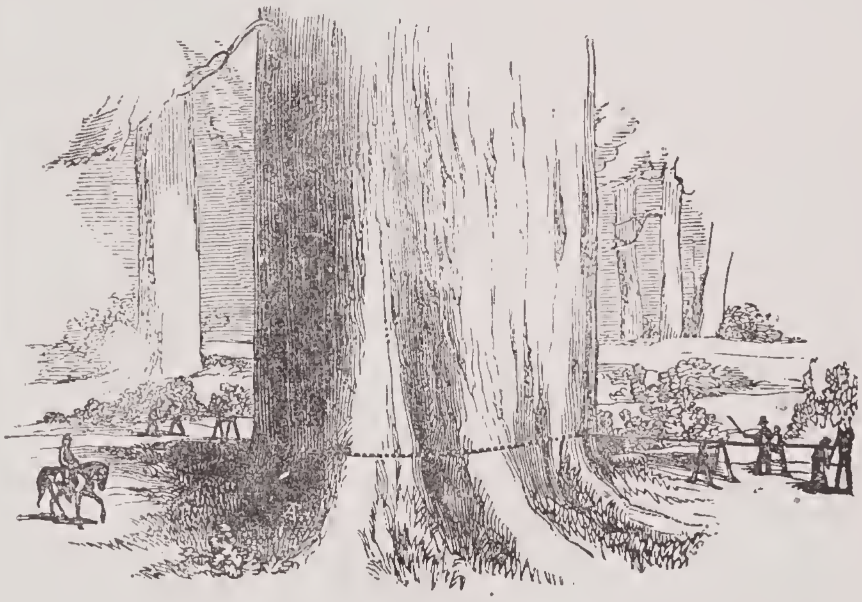
BIG TREE ON EXHIBITION.

The diameter of the tree where it was felled (the diameter of the top of the section that was exhibited) is twenty-one feet. This shell was sawed down, making fifteen gigantic slabs. This tree stood six miles away from a public road, and a road was built this whole distance, in order to get this section of the tree out. Each slab made a load for eight horses. The whole fifteen made two car loads. The owners of this great natural curiosity exhibited it in the East, and expected to make some money out of it, but strange to say, it failed to draw, and the owners never realized the first cost of its exhibition. It was put up on Market Street in San Francisco, where the writer visited the interior, which made a large room. On one side was a staging, erected for visitors, with a band stand on the opposite side. Around the interior were hung pictures of other large trees. It would hold a great many people at one time, and was a real curiosity.

Some attempts have been made at times to preserve these trees, but they are rapidly disappearing. One Martin Vivian was arrested in 1876, and found guilty of vandalism in cutting down one of these large trees. He was fined $50 by the Court. He ought to have been imprisoned for life! He cut it down to take to the Centennial at Philadelphia.

VISIT TO BIG TREES.

A party who visited this locality in 1882, says: "We walk around them, look up, exclaim and wonder, but find no words adequate for the occasion." The largest "Gen. Grant," has been measured, and requires an immense amount of twine to clasp his giant waist, and is grand and massive in his proportions. Others are called "The Siamese Twins," "The Twin Sisters," "The Centennial," etc. The largest, and the one of most interest to us, is the one from which the section was taken to the Centennial. It now lies prostrate, and reminds one of the hulk of a great ship in wreck. The interior of the trunk has been burned, and the sun pours through the great knot-holes into a gloomy cavern.



Felling Big Tree for Centennial Exhibition.

The rains have come through also, and formed a little lake on which one could easily row a boat. We climb on top of the great Centennial body, and walk from end to end.

Standing by one of these patriarchs of the forest, one is first struck with what he sees, their mammoth proportions and beautiful foliage, but soon the mind endeavors to solve the question of age.

The road that was worked in 1878, for the party to transport the tree over, is now scarcely perceptible, being filled in many places by fallen timber, making it very dangerous to attempt a passage over it, besides being considered impracticable. As there was a party last year desirous of visiting the spot, and gazing upon the stump, still left standing, J. E. Shuey conceived the idea of going there with a six-horse team, when he first mentioned it, the party thought that the proper place for him was Stockton. The employees at the mill said that if he could drive up and down that mountain, he could cross the Alps. The feat was accomplished, and a party of fifteen enjoyed a picnic upon the spot where once the shadows of the mighty monarch fell; but we are sure that if Hank Monk could have seen the manipulator of the ribbons, sending that team down those mountains, on the return trip, he would have felt sure that the passengers would be on time (what there was left of them), and would have conceded to him the palm.

MOUNTAIN LUMBER FLUME.

Summit Hill is situated high up on the mountain side, inaccessible to wagons; therefore the lumber has to be sent down 1,800 feet by a flume, which has such a descent that it is quite a sight to see with what rapidity the lumber reaches the foot of the mountain. Teams are waiting at nearly all hours of the day for loads to Mountain View, and other points farther down the valley.

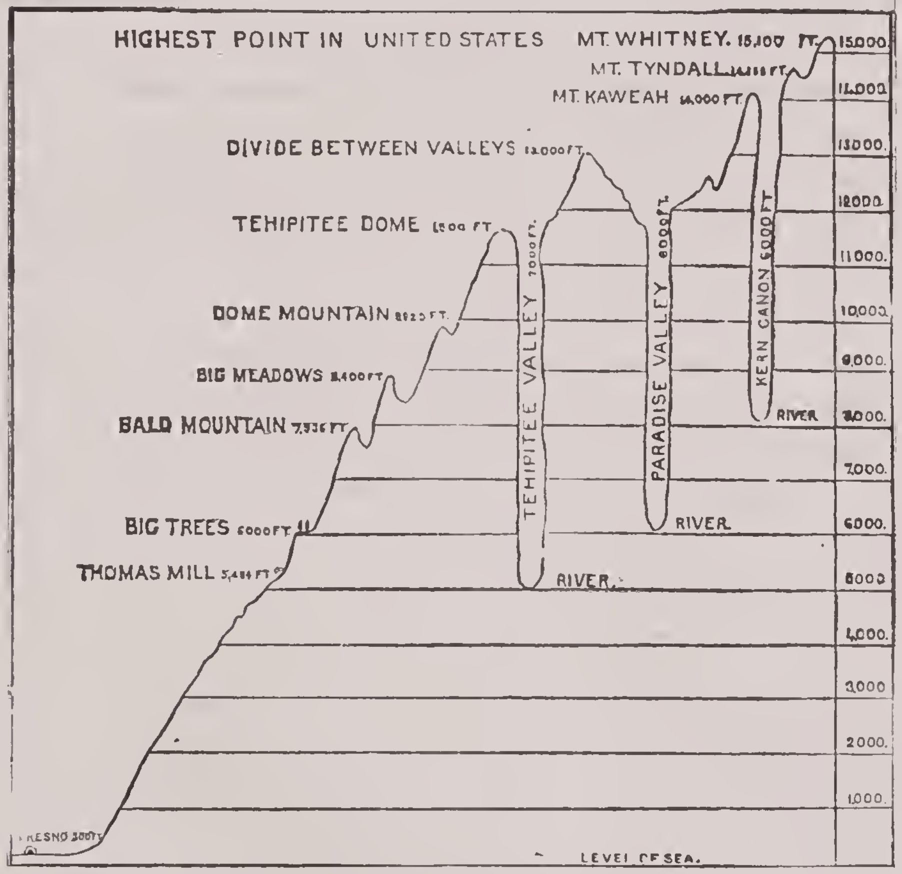


Diagram Showing Comparative Depth of Valleys.

PARADISE VALLEY.

From Tehipitee Valley you can go south to Paradise Valley, or King's River Cañon, as it was first called. Prof. Whitney, who visited this valley, and attempted to go north towards Tehipitee (then unknown), reported an "impassable barrier." But this is found not to be so, and a good trail passes over the ridge, or mountain, which is 13,000 feet high, as shown in the diagram.

This valley says Prof. Whitney, is from half a mile to a mile wide, and eleven miles long. It is closed at the lower end by a deep and impassable cañon. It is *deeper and its sides more precipitous than Yosemite's.* Many points are from 4,000 to 6,000 feet high. At the head of the valley is a solid rock wall, a perpendicular precipice of "from 6,500 to 7,000 feet high." "*It rivals, and in many respects, even surpasses Yosemite in altitude of surrounding cliffs.*" The altitude of their camp at the lower end of this valley, they gave approximately as 4,737 feet; at the higher, 5,218 feet. This shows a height of over 12,000 feet for the cliffs and peak at the upper end, which the miners call Mt. Tumble, because huge bowlders occasionally rush down its steep declivities, cutting down and shivering in pieces pine trees from four to six feet in diameter.

DESCRIPTION OF PARADISE VALLEY.

We are indebted for the following information about the Paradise Valley to an interesting article, written by J. W. A. Wright, who has made several trips to this region, and is familiar with the scenery.

Paradise Valley, or King's River Cañon, is on that branch of King's River, formerly called by Whitney and others the South Fork, but which, by later and more thorough exploration, proves to be the middle fork of that large stream, the third or fourth in capacity among the rivers of California. The valley is unexplored for at least five miles. That part of the Middle Fork which runs through this valley, is from 150 feet in width above, to 200 feet below, and from three to fifteen feet in depth at various points; and west of the valley it rushes into a deeper, narrower, wilder cañon than does the Merced at the lower end of Yosemite. Whitney truly remarks that in only two respects has Yosemite the advantage of what is now called Paradise Valley, viz., some of its walls, though not so high, are more vertical, and its falls are higher.

CHARACTER OF THE VALLEY.

Whitney's description is very accurate in saying: "The bottom of the valley is covered with granitic sand, forming a soil which supports a fine growth of timber, with here and there a meadow. The river abounds in trout." This timber, besides yellow pines (*Pinus ponderosa*) sugar pines (*P. Lambertiana*) and others of the conifers, some of them eight feet through at the base, comprises at least three species of the oak, the white (*Quercus hindsii*) black, (*Q. Sonomensis*) and live oak (*Q. agrifolia*); also maples (*Acer circinatum*) and alders (*Alnus Oregona*). Here the characteristic mountain or white cedar of California (*libocedrus decurrens*) attains its largest size, from six to eight feet in diameter, and fully 150 feet high.

COMPARISON WITH YOSEMITE.

Compare figures of elevations with those for Yosemite, and the superior points of Paradise Valley are more clearly seen.

Level of bottom of Yosemite Valley, about 4,000 feet above the sea; while Paradise Valley is 4,737.

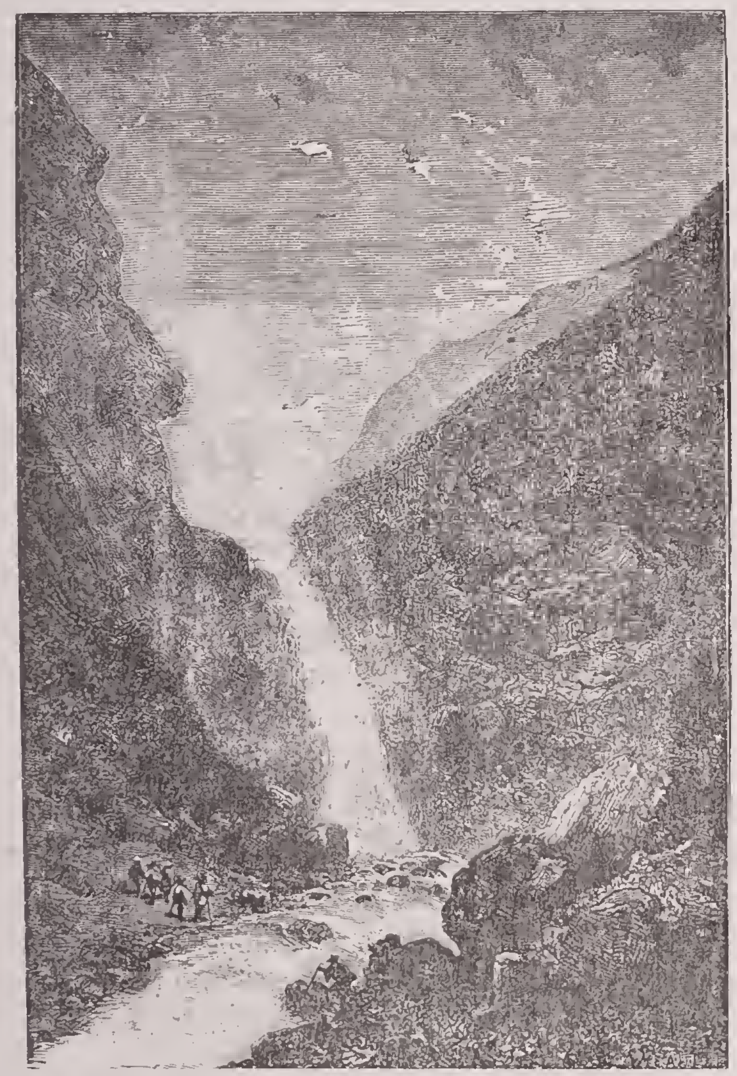
Width of Merced River in the valley, 70 feet, while width of King's River in Paradise Valley is 200 feet.

Height of El Capitan above valley, 3,300 feet; North Dome, 3,568; Half Dome, 4,737; and in Paradise Valley are precipitous cliffs "from 3,500 to 6,000 feet above the base," while at the head of the valley, in a corresponding position to Half Dome in Yosemite is a nearly vertical wall from 6,500 to 7,000 feet high.

Then the surrounding mountains are much taller. The dividing ridge between the middle and north forks of King's River and twelve miles north of the valley, is at least 13,000 feet high, but accessible with guides for horses or men, though the geological survey did not succeed in finding the route.

BEAUTIFUL CASCADES.

Paradise Valley is made beautiful by a number of fine cascades, some leaps of which are from 150 to 200 feet; in fact a chain of these cascades called "The Falls," where the Middle Fork enters the east end of the valley, makes an entire descent of more than 2,000 feet in a mile and a half, or fully 4,000 feet in four miles. Thence toward the west, in succession, on the north side, Copper, Granite and Deer Creeks; and on the south side, Dubb's Creek, Roaring River and Summit Creek, besides smaller ones, form a series of magnificent cascades, winter and summer, without ceasing, which dash down precipitous lateral cañons, descending from 3,000 to 5,000 feet in distances, varying from one to three miles. The size of this stream led some to call it the south fork of King's River. Its course is very winding, and mostly in deep cañons, from 300 to 500 feet wide, cut down in solid walls of rock fully 2,000 feet deep in places. Of this deep gorge, the best view is had in passing up the valley. Just before it enters the valley, that stream is condensed into a width of from ten to thirty feet at different seasons, and plunges at one leap about 100 feet over a granite precipice, falling into a round, well-worn basin, with a deafening roar. This circular basin, in the solid granite, is over 200 feet across and at least 30 feet deep. It is full of the finest speckled mountain trout, which cannot get above it in that direction. Indeed all the other tributaries abound in these trout up to their higher falls.



Beautiful Cascades.

NAMES OF MOUNTAINS VISIBLE.

In direct line, about twelve miles east of the valley, is the south end of the Palisades, that grand range of perpendicular cliffs, of comparatively recent volcanic formation, along the summit ridge of the Sierra, between Fresno and Mono Counties, which range from 13,000 to 14,000 feet in height.

Mount Goddard, about twenty miles north of northeast, is 14,000 feet; Mount Silliman, twenty-two miles south, is 11,623 feet; Mount King and Mount Gardner, sixteen miles southeast, probably over 14,000 feet; Mount Brewer, twenty-three miles southeast, 13,886 feet, and is on a spur embraced by two branches of King's River. Near it ten peaks can be seen as high, and perhaps four, higher, according to the geological survey. Slightly east of south, thirty-two miles, is the lofty Kaweah Peak, one of the highest points seen from San Joaquin Valley, and estimated to be over 14,000 feet, though its exact height has really not been ascertained. Southeast, thirty miles, are Mount Tyndall, 14,386 feet, and Mount Williamson,—"an inaccessible bunch of needles"—higher still, and about two miles north of Tyndall.

HIGHEST POINT IN UNITED STATES.

Thirty-eight miles southeast is the culminating point of all the Sierra Nevada, Mt. Whitney, whose height is not far from 15,000 feet, and whose huge slopes, cañons and tablelands form the immense water-shed that is drained by Kern River and its numerous tributaries.

All these, and hundreds of less-noted peaks, can be seen from high points near Paradise Valley. This grand cañon of King's River, nestling thus in the midst of the most magnificent Alpine scenery of America, which surrounds it within a radius of fifty miles, is, in straight lines, fifty-five miles northeast of Visalia, sixty-five slightly north of east from Fresno City, thirty miles northwest of Independence, and fifty miles, a little east of south, from Mammoth City. From Yosemite Valley and its kindred wonders about seventy-five miles southeast.

DOUBLE SUNSET EVERY DAY.

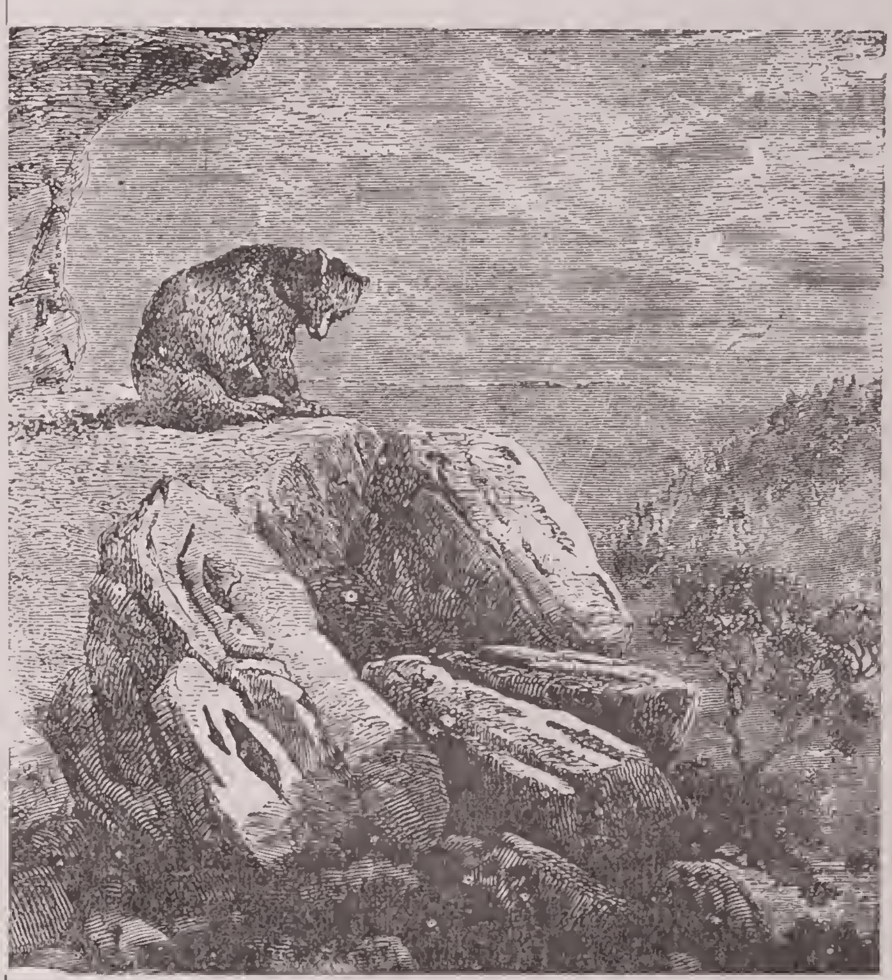
A remarkable natural phenomenon of this valley is a double sunset every day, as seen from near Copper Creek. Regularly at 1:30 P. M. the sun passed behind a very high cliff and peak on the south side of the great cañon. For about two hours it would remain concealed from view, and would then burst forth again from beyond the western edge of Mount Capitan and just over the falls of Roaring River. Then they had a second sunset about the same hour that it occurs in San Joaquin Valley, the sun seeming to pass down the deep gorge to the the westward, where King's River finds its exit towards the plain. Few, if any other, regions of our coast, or any other country, can claim such sunsets twice a day. Another fact in nature worthy of record, is that, because of the dense shade of the high walls on the south side of this valley, the snow disappears, trees bud, and flowers bloom on *the north side,* immediately under its perpendicular cliffs—which reflect the sun's rays down into the valley—in February, three months sooner than on the south side. In the latter region snow remains in the deep crevices and gorges till in June. Similar effects of the more or less direct rays of the sun are seen along all the southern or northern slopes, not only of the mountains of our coast, but throughout the world. The wild flowers of this valley are much the same as in Yosemite.

FIRST PARTIES WHO WINTERED IN VALLEY.

The first white men to spend the winter of 1877–8 in the valley, says J. W. A. Wright, were W. A. Clark, Wm. Hicks, Wm. Hilton, and L. M. Grover, all of them having experience as mountaineers and hunters. Leaving Visalia November 10th with a pack-train, carrying their winter's supplies and tools, they reached the valley on the 14th, and immediately located a camp near the upper end of the valley, north of the river, and on the east bank of Copper Creek, from which their supply of water was to come. Feed being scarce, as some 180,000 sheep had been driven through the mountains of Fresno that dry summer, of which at least 60,000 were lost, they sent out their pack animals to bring additional supplies, and made it their first care to put up a substantial cabin, built of rough pine logs, well chinked and daubed, having a puncheon floor and a substantial stone chimney, supported in part by a log frame on the outside. The first week in December the pack-train returned with their last supplies, and hurried out again that it might not be caught in heavy snow-storms, then daily expected on the higher ridges. A few stray stock began to gather in the valley around the camp, led by the instinct that warns them of the approach of winter, and inclines them to seek the presence and protection of man in such isolation. These consisted of several small bands of sheep, two cows and calves, and five horses, including a handsome young black stallion. The latter was the only one of the entire number that survived the bears and scarcity of food through the winter, though the cold alone was not severe enough to kill them. It was mild and pleasant nearly all winter—never severely cold. They usually kept their door open all day, except for about two weeks. All of which shows this fine valley to be comfortably habitable every winter for men and domestic animals, with proper preparation of food and shelter, whenever it becomes an object to remain there.

PLENTY OF GAME.

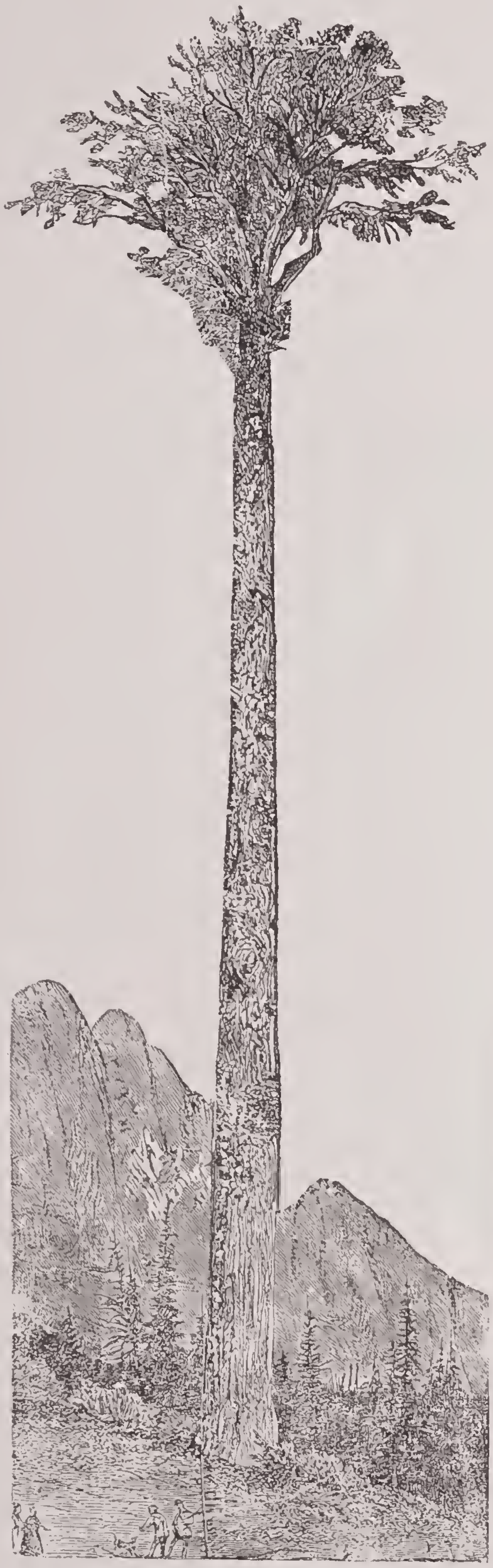
Previous to January 20th, they killed three cinnamon and a black bear, using their hindquarters and slices of tenderloin for meat. Among other game in and around this valley are the fine, large gray squirrel (*sciurus fossor*), of our higher mountains, occasional flocks of the wild pigeons of California, the band-tailed pigeon (*Columba fasciata*) and the fisher, or American sable (*Mustela Pennantii*) the largest of the Marten family. The squirrels come in great numbers late in the fall, and spend the winter in the valley. There they get abundance of acorns, a food of which the bears are also very fond. In the dense forests, along the adjacent slopes, however, the dusky grouse (*Tetrao obscurus*) is found in sufficient numbers to afford good sport for hunters. The common dove (*Zenaidura carolinensis*), found all over the United States, abounds there in summer. They enter the valley in July, from the plains below, and remain about three months. Our American robins (*Turdus migratorius*) frequent the valley during the summer. The only snakes found there are our ubiquitous rattlesnake, in June and July, and the small brown water-snake (*Regina valida?*) of California. In the neighboring mountains the most venomous rattlesnakes, from four to five feet long, have occasionally been killed. There are scorpions in the valley, but no tarantulas or centipedes.



A NATIVE VIEWING THE SCENERY.

ANIMAL LIFE IN THE SIERRAS.

Three species of bear, the black, cinnamon and brown, are occasionally met with as high as 10,000 feet. In mid-summer, deer keep close to the snow line. Grouse are numerous in certain localities, and in the spring their drumming may be heard on every hill-side. Mountain quail, roused by the traveler, fly in every direction from a common center, and generally the quick whir of their vanishing forms is the first intimation one has of their presence. Lesser lights of the feathered tribe flit to and fro among the trees, and trill sweet lays from deep forests. Social thrushes, rapping wood-peckers, darting humming-birds, gold-tinted finches, confiding snowbirds, diving water-ousels, talkative chickadees, California bluebirds, facetious owls, narrow-billed wood-ducks, and chattering blue jays, have their habitats in the Sierras.



King of the Mountains.

Among the arboreal quadrupeds, the most beautiful is the black fox. It has a pelage of the finest and blackest fur, with an eye that Cleopatra's could not rival for brilliancy. It watches the intruder from afar, and on his first effort to approach, disappears among the rocks.

The mountain sheep, once common in this region, is now rarely seen. He who visits the Sierras to trap the black fox, or hunt the mountain sheep, undertakes a heroic task, and one not easily accomplished.

There are many mighty cañons and yawning gorges along the bottoms of which rush furious rivers and many tributaries. There are occasional benches, or narrow, level surfaces, free from thicket and occupied by the stately forests; but the most of this belt presents deep ravines bristling with tangled thickets, where prowl the brown, black, and dreaded grizzly bears, with their irascible compeer, the "California lion." An occasional saw-mill, or hunter's cabin, or temporary "sheep camp," are the only signs of civilization.

KING OF THE MOUNTAINS.

This name was given by Clarence King to one of the big trees near Thomas Mill. Standing in rather an open glade, where the ground was starred with upland flowers, stood the largest shaft we observed. It was a slowly tapering, regularly round column of about forty feet diameter, and rising 274 feet, which height was accurately measured, and adorned with a few huge branches. That which impresses one most after its vast bulk and grand pillar-like stateliness, is the thin and inconspicuous foliage, which feathers out delicately on the boughs, like a mere mist of pale apple-green. Near this tree grew a sugar-pine of about 8 feet diameter, and hardly less than 300 feet high. For 150 feet the pine was branchless, and as round as if turned ; delicate, bluish-purple in hue. Adjoining were two firs, which sprang from a common root, dividing slightly as they rose about 300 feet. The two firs, King judges, were about 300 years old ; the pine 500 years, and the King of the Mountains not less than 2,000 years.

"This monarch is one for whose sake it would be worth while to make a long journey to see. It is not in words to convey an impression of its granduer, majesty and power."

VISIT TO PARADISE VALLEY.

A correspondent of the Fresno *Republican*, who went to visit the valley in 1882, says : From Fresno to the Big Trees, a distance of fifty-five miles, there is a plain wagon road, but beyond that the traveler must take it afoot or on horseback. Knowing this, we took the entire journey on horseback, carrying our camp equipage on a pack animal. Occasionally for fifteen miles are found groves of the *sequoia gigantea* ; one on Boulder Creek containing a large number of monster growths. Toiling on, real work is necessary to ascend some of the towering mountains over which the trail leads. On either hand the view was simply grand. From the mountain top, where the descent into King's River Cañon begins, looking to the north and east the picture is one never to be forgotten, and the weird grandeur brought to view is beyond the power of pen description. Across the rugged gorge, about twenty miles distant, towers Mount Kearsage, whose snowy cap rests 14,500 feet above the sea.

Two hours and a half constantly descending will bring you to the bottom of the famous cañon. Flowing at your feet is the south fork of King's River, fresh, pure and cold from its snowy fountain. About half a mile wide and fifteen miles long, this cañon or valley is walled in by rocky mountains, rising perpendicularly 4,000 to 6,000 feet above the river bed. Little or no vegetation grows upon these walls of solid rock, which tower aloft and seem wholly above and beyond the milder influences of nature. While seeming, yet they are not, in their granite firmness, beyond the gentle but mighty force of the tiny rivulet trickling down their rugged sides. A five days' sojourn in this wild place sufficed to show many points of great interest. The river abounds with speckled trout which take the fly or 'hopper eagerly. Along the banks are grassy meadows through which the sportive streams come leaping from the rocky cliffs above, and earlier in the season foaming cataracts issuing from the melting snows add to the otherwise sublime scene.

GRAND AND INTERESTING.

Clarence King says: "We could not find words to describe the terribleness and grandeur of the deep cañon. The average descent is immensely steep. At times the two walls approach each other, standing in perpendicular gateways. The ridges of one side are reproduced upon the other. It is safe to say that the actual rending asunder of the mountain mass determined and formed this cañon."

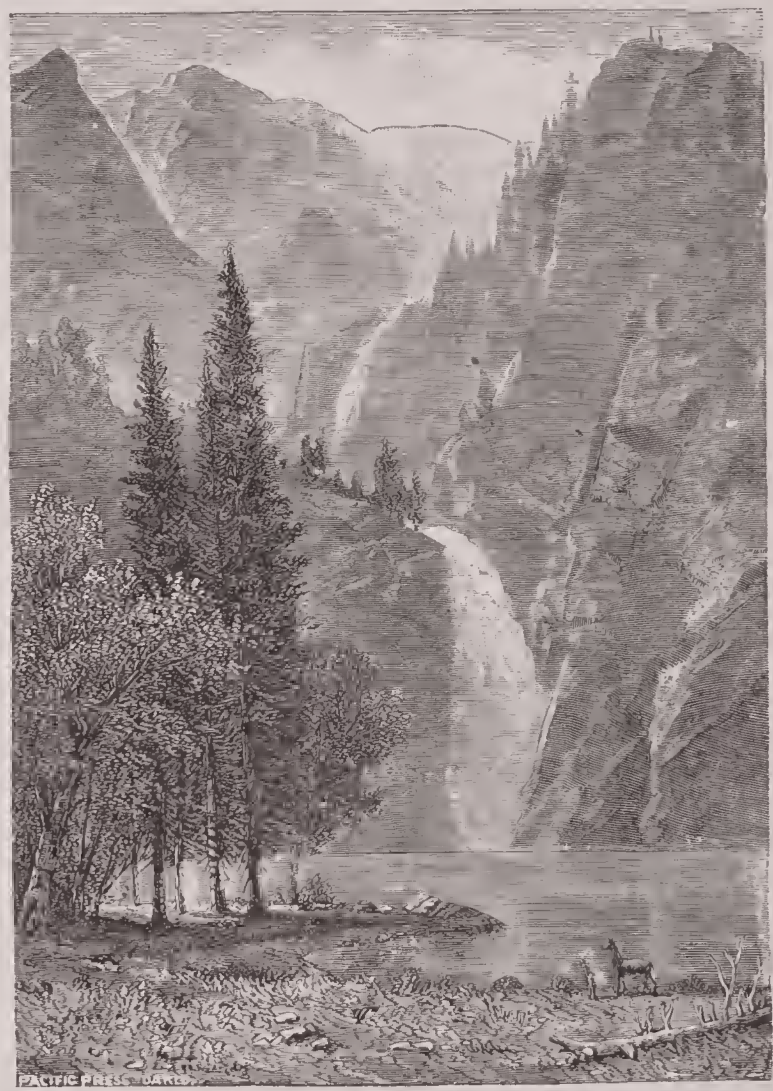
Bierstadt made a painting of what he termed, "King's River Cañon," which attracted great attention. It was reported to have been sold to an English nobleman for $50,000.

Judge Winchell says: "From the forest to the crest of the Sierra, is a land of science most awful, of desolation most stupendous, a universe of granite, drear and naked, except when robed in snow. Summer tears this robe in tatters, uncovering by the middle of autumn, the gaunt ribs and gray crest; but in the gorges and on the shaded slopes the snow and ice endure forever. From the brink of a precipice at the lower edge of this belt, the party mentioned looked down into the chasm of King's River—a vertical mile deep! Lifting up their eyes they beheld Mount Whitney, with a long train of lofty peaks which barred the east. The flanks, shoulders, and crests of these monarchs were of cold, gray granite, spotted with fields of snow. There were endless forms of dizzy walls, towering needles, slippery declivities, dreadful yawning gulfs, sullen sleeping masses of adamant, that filled the scope of vision for fifty miles north and south, as the awe-stricken travelers gazed upon the scene.

In a narrow crevice below them, King's River lay like a shining thread. Descending, for four miles, by a steep though coiling trail, they reached the floor of the gorge, finding it the rival of Yosemite.

The valley, one-half a mile wide and twelve miles long, was closed at either end by inaccessible cañons.

Through it, the middle fork of King's River shot its arrowy way. Gentle slopes on each side were clothed in fresh grass and fragrant ferns, and shaded by forests of pine. Threading the valley to its upper end, they passed, on the right and on the left, smooth, perpendicular walls that seemed to woo the clouds. Such a mural front stood across the eastern extremity of the valley. On either hand rose two similar cliffs, completing three sides of a square apartment. Through the two corners rushed into this space two roaring streams, which instantly uniting, formed the middle fork of King's River. The travelers pitched their tent at this junction, in an open glade carpeted with verdure, over which the three towering walls seemed to bend. There were speckled trout in the berylline waters, mountain grouse upon the cliffs, squirrels among the trees, a sky shaming that of Italy, a genial October sun. But the crowning attraction, beauty, glory and wonder, were those three mighty tablets—each a thousand feet broad and four times higher—springing like walls of a Titian temple from the green carpet to the blue sky.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Scene in Kern River Canon. (From a painting by A. Bierstadt.)

KERN RIVER CAÑON.

The bottom of another wild, grand and awe-inspiring valley is that of the Kern River at its head. The cañon runs north, and south at the base of Mount Whitney and other grand peaks. This valley is 8,000 feet above the sea. The cañon is quite broad and level, with groves of pine and fir and little meadows scattered over its surface. For a long distance there are high precipitous walls. The sides are more nearly perpendicular than those of Paradise Valley. The walls vary in height from 3,000 to 6,000 feet. For nearly twenty miles along this cañon there is but one point where horses can be taken out on the west, and not one on the east. Little meadows occur every few hundred yards, and there is not the desolate, sand-strewn flats that Paradise Valley presents. In riding along between these massive walls that rise so high above, one cannot but feel as though he had been suddenly let down into the interior of the earth.

The width at the bottom of this huge cañon, for thirty or forty miles, varies from less than a quarter of a mile to a mile, while the upper edges of the beetling cliffs that form its continuous walls are from one to two miles apart. Near these falls the altitude of the river-bed varies from 7,000 to 7,200 feet, while, judging from the apparent smallness of the trees which fringe the upper edges of the cliffs, their height above sea-level must range from 9,000 to 11,000 feet. This would make the wall-faces tower from 2,000 to 5,000 feet above the bottom of the cañon, while the peaks that crown these walls are from 500 to 2,500 feet higher.

For grandeur it far surpasses Paradise Cañon on King's River, which Muir styled the "New Yosemite."

Along this cañon one in search of pleasure or relief from care may loiter away many an interesting day.

SHA-GOO-PAH FALLS.

There are five waterfalls from the sides of the cañon, that are from 1,500 to 3,000 feet high, the water of which drops down two or three feet at a plunge, to be dashed into spray on a narrow shelf or glanced off to similar shelves below. The highest of the falls is called Sha-goo-pah, from the Indian name of Mount Williamson. Its height is 3,000 feet. There are three handsome falls, from 1,500 to 3,000 feet high, formed by small streams that leap over the very precipitous western wall of the cañon, and another such waterfall coming from the east. The highest of these on the west is named Sha-goo-pah Falls, as mentioned.

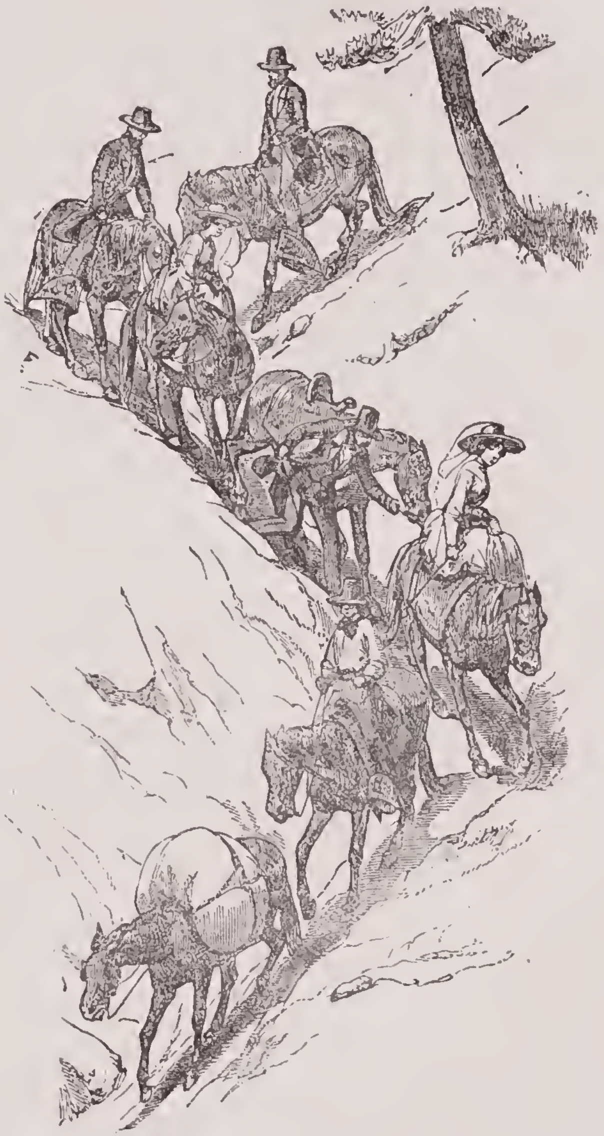
From the sides come in many smaller cañons to remind one of Powell's vivid description of those of Colorado.

The general monotonous appearance of the gray granite is relieved by a variety made up largely of rosy-tinted feldspar that forms part of the west cañon wall. Above Junction Camp this variety has been worn into the forms of columns and needles, that scintillate under the bright beams of the morning sun. Throughout this entire region of upper Kern, nature seems to have taken a delight in sharp angles and striking contrasts. You pass out of the cañon onto a plateau having a triangular form, and extending south from Mount Kaweah about six miles, and which at the base has a width of four miles. It is covered with a heavy growth of pine and fir, amongst which are countless numbers of fallen trees. Numerous meadows dot its surface, and many little brooks flowing from Mount Kaweah cross it.

Near the southern extremity is a shallow lake, half a mile long, far surpassing Mirror Lake of Yosemite.

HEMATITE BASIN.

The large basin at the head of this valley is called Hematite Basin, from an immense ledge of hematite (a peculiar iron ore) that is found there. Along the cañon and in this basin is a considerable variety of rocks and minerals. Diorite, quartz-diorite, porphyry, calc-spar, red and green quartzite, tourmaline, magnetite, tremolite, hornblende, epidote, pyrites of copper, galena and zinc-blende are to be found there. Near the head of the canon are two great tables of granulite, thirty feet long, and from six to twelve feet wide, as smooth and level as if they had been wrought by hand. There are many lakelets of varying sizes, and of a common character. From the outlet of each, back to the center, is a smoothly worn and very gradually inclined plane. The glacier burnished surfaces here are very extensive.



Visitors in the Sierras.

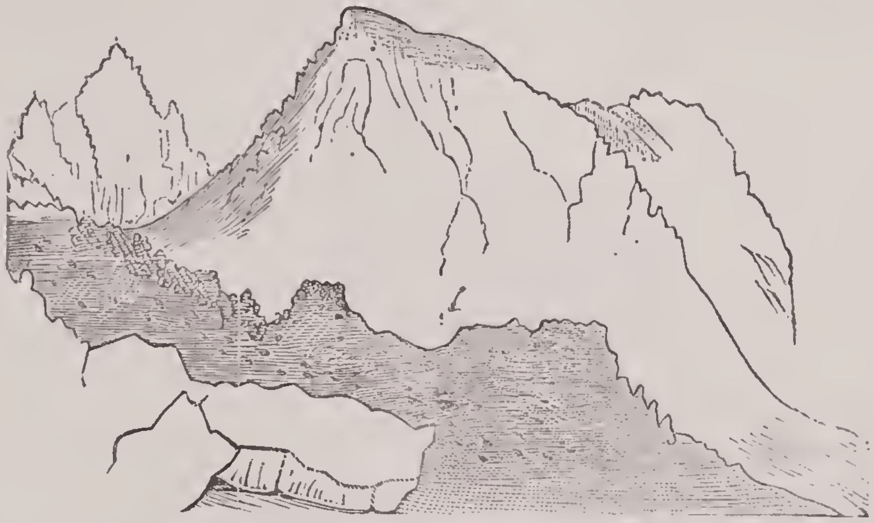
RED SNOW.

This peculiar and beautiful sight is met with on these mountains at an elevation of 12,000 feet. Mr. Dusy says he has seen miles of it on the mountain ranges. When examined through a strong microscope these odd and and pretty globules are discovered to be of the very small microscopic water plant, *protococcus navalis*, which gives to this snow its red or crimson color. These minute globules appear as round as a ball. They propagate by subdivision. The best way to preserve them for examination under the microscope, is to melt a bucketful of the red snow, let the coloring substance settle, pour off the water and save the red sediment, of which you will have about a tablespoonful. Dry this and it forms a pinkish powder, a few particles of which can be moistened and mounted for the microscope at any time. They are, beyond question the veritable *protococcus navalis*, discovered first in the Arctic regions and then in the Alps, and in late years found in abundance on many of the higher mountains of Colorado Utah and California.

Some red snow was found along the upper edge of the huge snow-bank in the gorge of Farewell Gap. This snow, which was, no doubt, twenty-five feet deep, is the source of the Little Kern. This red snow, when scraped up and held in the hand, is just like red rock-candy crushed, and its color when melted is exactly the same as the water of a red watermelon.

MOUNT WHITNEY.

"This grand mountain," says Clarence King, "is a splendid mass of granite, 14,987 feet high, inchiseled and storm-tinted a great monolith left standing amid the ruins of a bygone geological empire, the summit of the United States."



MOUNT WHITNEY. (Sketched by Wales.)

"At eleven o'clock the next morning Knowles and I stood together on the topmost peak of Mount Whitney. We found there a monument of stones and records of two parties who had preceded us. The first, Messrs. Hunter and Crapo, and next Robe, of Geological survey. The first, so far as we know, who had ascended this summit. Mr. Robe made the first measurements. We were all there within a month."

THE DEVIL'S LADDER.

The most difficult portion of this steep climb is what is called the Devil's Ladder. This begins at a height of about 13,000 feet, and extends upward at least a quarter of a mile, between perpendicular outcroppings of rock, forty or fifty feet apart, and looking very much like the "Devil's Slide" in Weber Cañon, on the Union Pacific Railroad. By such zigzags as one does not often see, even on mountain trails, mules lightly packed can make the ascent with great difficulty, it being necessary at one point for men to unpack them and remove the articles one by one to a point fifty or sixty feet above, and there repack the animals. Some of his pack animals were the first that ever reached the summit of Whitney, and considerable work had to be done on a trail before the feat could be accomplished.

VIEW OF MOUNT WHITNEY.

We here present an engraving of Mount Whitney, furnished us by Captain Wright, who says that though plain, this engraving is very accurate, and gives correctly the appearance of this grand and noted peak, as seen from the deep, wild, rocky gorge immediately west of it, known as Whitney Cañon. Down this cañon Whitney Creek proper flows southwest to the main Kern, about eight miles distant in a straight line. It also presents faithfully the outlines of the true Mount Whitney as seen from the elevated tablelands to westward, on both the east and west side of the immense cañon of the main Kern; also from Mount Kaweah, located some ten or twelve miles in a direct line, slightly south of west from Mount Whitney; and from the high divide still farther west, in which is the precipitous Cliff Pass, 12,000 feet above sea level, and which forms the west wall of Jenny Lind Cañon, through which flows a large westerly branch of Kern River, called by the miners Crabtree Creek, from one of their number.

One remarkable thing about a view from Mount Whitney is that while you stand on the highest point in the United States, 15,000 feet above the sea, you overlook the renowned "Death Valley," but seventy-five miles away—that rainless, lifeless, bone-strewn valley, the *lowest land* in America—three hundred and seventy-seven feet below sea level.

Due south can be seen the bold outlines of the San Gabriel Mountains, near Los Angeles, and a range of mountains on the Colorado River, 200 miles away.

SIGNAL STATION OF MOUNT WHITNEY.

In accordance with orders from the War Department, there was established a Signal Station on Mount Whitney, and the United States flag officially raised, August 16, 1881.

A trail was made, which was, perhaps, three or four miles in length from camp to camp, by which the pack mules, by dint of hard climbing, carried to the summit the tent, bedding and a few instruments, with enough food and fuel—a quarter of a cord of wood—to last during the four days and nights that part of the corps made observations there, September 2d to 6th. So, as far as packing up supplies is concerned, that can be done, but not without the severest and prolonged exertion of man and beast.

LADIES ASCEND MOUNT WHITNEY.

Towards the end of July, 1877, a party of ladies and gentlemen from Porterville started on an excursion to Mount Whitney. At Fish Lake they met Mr. Wm. Crapo, one of the guides of Captain Michaelis' party. He went with them, and hey undoubtedly ascended to the summit of the true Mount

Whitney, and left their record in its monument, with the names of Clarence King, John Muir, A. H. Johnson and some of Lieutenant Wheeler's party. Mr. Crapo told so much of the plucky perseverance of one of the ladies under peculiar disadvantages, to surmount all the difficulties of that most arduous climb, that by common agreement it was felt a prominent peak should be named in her honor. The party who made the ascent consisted of Judge Redd and wife, and two sons, George and Robert, Miss Hope Broughton, Miss Mattie Martin, H. E. Ford, Kit Carson Johnson, Luther Anderson and N. B. Martin, with the lady teacher after whom the mountain referred to is named—Miss Anna Mills. It was undecided for a time which peak to name for her, but the final selection was a long, high peak just south of Loomis Cañon and about four miles south of Mount Guyot. It is certainly between 13,000 and 14,000 feet in altitude. Even in September there was considerable snow near its summit. It lies along the regular route to Mount Whitney.

TWO-MAN-I-GOO-YAH PARK.

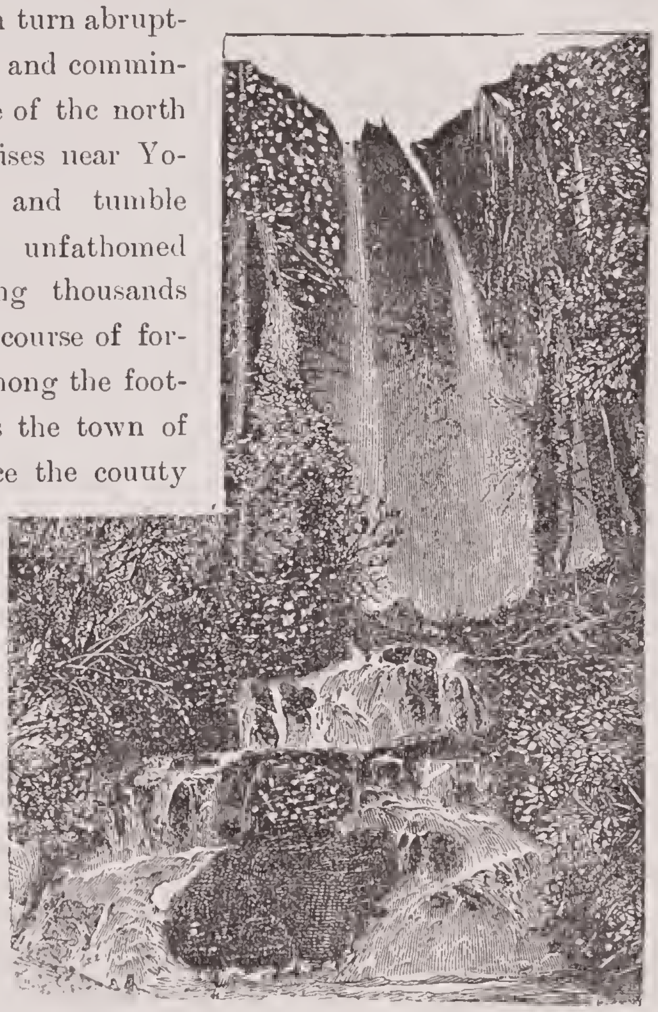
The unanimous conclusion of the Wright party was that Congress should establish in connection with the signal station on Mount Whitney a National Park, on somewhat the same plan as the "Yellowstone Park." It was believed that twenty miles square, or 400 square miles, around Mount Whitney would include sufficient area for this purpose. Or twenty miles north and south by twenty-five east and west might be better, as this would embrace the Kaweah group, with its meadows and abundant forests of hackmatack. This would make the area extend ten miles north and ten miles south of Mount Whitney; seven miles east of it, to the base of the Sierra in Owen's River Valley, and eighteen miles west of it, including the upper twenty miles of the truly grand cañon of the main Kern, with the five high waterfalls dashing over its precipitous cliffs from 1,500 to upwards of 3,000 feet in height. This Government reservation it is proposed to call Two-man-i-goo-yah Park.

Four thundering streams leap out of the snow from beneath the throne of Mount Whitney. They rush down the western slope of the Sierra into that great and undivided valley, the south half of which is called Tulare, from its tule marshes, the north half San Joaquin, from its chief river. From Mt. Whitney's southern base the north fork of Kern River flows southwardly along the lofty rugged valley between the main ridge of the Sierra and its inferior counterpart as far as Walker's Pass, when, joining with the south fork, they together turn to the west, break through all the mountain barriers, and launching upon the peaceful Tulare Plain pour into the wide "Lake of the Tulares." Bakersfield, the county-seat, is in the midst of the plain near the river.

From the mountain's western base flows westerly the Kaweah, down deep gorges and over plunging falls to the valley's edge, where it instantly unbraids into four streams, that meander across the plain to the Tulare Lake and are called the "Four Creeks." They traverse and embrace a rich alluvial "delta" in the midst of which, guarded by giant oaks, stands the village of Visalia.

From the northwestern front of the mountain the south fork of King's River goes forth to wed the middle fork, is a few miles below joined by the north fork, and becomes a strong and headstrong stream.

Lastly, from the northern side of Mount Whitney the splendid rivulets of the south fork of the San Joaquin shape their rise. They flow northward between parallel chains for thirty miles and then turn abruptly to the west and commingle with those of the north fork, which rises near Yosemite, roar and tumble along dark, unfathomed caverns, falling thousands of feet in the course of forty miles. Among the foothills they pass the town of Millerton, once the county seat of Fresno County; thence into the level pampas of the great valley, westerly for forty miles, where sweeping slowly around to the northward in a great curve they roll lazily off to the Golden Gate. Directly opposite this region, lies the Owen's River Valley, the county of Inyo. That valley is essentially of volcanic character. Mono Lake is a veritable Dead Sea.



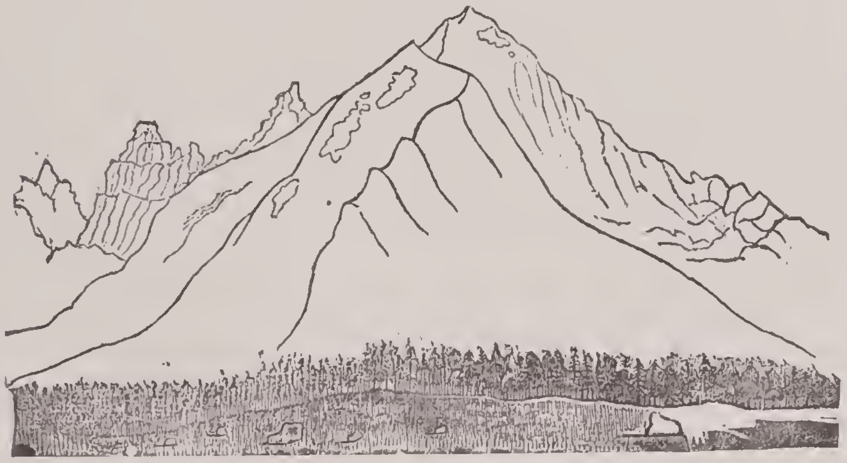
TWIN FALLS.

Between the remaining basalt-capped hills are many peaceful and picturesque vales that have been scooped out by the hand of nature since the fiery epoch closed; and pretty cottages, with tiny farms, orchards and vineyards, are now nestled in dreamy repose and fancied security, in spots where once, a thousand feet above them, flowed endless, fearful, incandescent tides of fluid granite.

Along this belt are found many small creeks and rivulets, fed by the winter rains, and occasional springs flowing through secluded, narrow vales of rich soil, where pioneers have fenced and cultivated a few acres, reared their unpretending cottages, and gathered about them flocks and herds.

THE KAWEAH BUTTES.

We here give the only engraving ever made of four of California's most noted peaks, Mounts Albert, Henry, Le Conte and Kaweah. It is from a drawing hastily made by Rev. F. H. Wales, one of the party of three who were exploring the upper Kern in 1881—Wallace, Wales and Wright. It was made—the impromptu artist seated on a huge bowlder—on the frosty morning that they left "Camp Kaweah," where, for part of three days, they pitched their cosy tent near a clear, cold brook in the edge of a dense tamarack forest, on the southern side of a large, open, sandy meadow, and, as nearly as they could estimate, about three miles south of the highest point of Mount Kaweah, as shown in the engraving. The high, massive and very grand peak on the south end of this ridge is the true Mount Kaweah, and is shown on the right in the engraving. The sharp point farthest north, or on the left side of the engraving, is Mount Albert, The next peak south, or just to the right of it, is Mount Henry. The sharp point seen here between Mount Henry and Mount Kaweah has not yet been named, "but permit me," says Mr. Wright, "to suggest the propriety of calling it Mount Le Conte, in honor of Prof. Joseph Le Conte, of the University of California, whose labors have done so much to solve the peculiar difficulties of the geology of California." All four of these most prominent peaks of this group are of nearly the same altitude—that is, they are all about 14,000 feet high.



Mounts Albert, Henry, Le Conte and Kaweah.

ASCENT OF MOUNT KAWEAH.

That afternoon the last-named party searched for the best route to reach the summit of the grand peak. No sign of a trail appeared, nor evidence that men had been there. They found the ascent comparatively easy for animals, however, far up above the timber line. The Indian word, it seems, is represented by the syllables Kah-wah, with accent on the last. Literally it means, "I sit here," or as we may more appropriately render it in English, "Here I dwell," or "Here I rest." Kah-wah.

By noon they had wound their way on horseback, among primeval forests and rocks, above the last scrubby specimens of the *pinus contorta*, to a height of 12,500 feet. Here they lunched and left their horses tied to huge bowlders. This was in a sandy sag on the southwest slope, just below the lowest of four large snow-fields, shown in the engraving as irregularly bounded spots. Thence they moved to the west, climbing from rock to rock, upward and ever upward, soon wearied and out of breath. None can have a conception of the extreme exertion and utter exhaustion from time to time of this rough and trackless peak climbing. At three P. M. Mr. Wright had reached the top of the lower peak, just above the first three snow-fields. Its height was found to be not far from 13 350 feet. His comrades, lighter weights and more practiced mountain climbers, were by this time on the highest point and were busy selecting material for a monument with which to crown the summit. At 4:40 P. M. all were united on the highest point. Here, after careful examination, not the slightest trace was found that any human being had ever been there before.

NAMING THE MOUNTAINS.

Many of these distinct peaks are not yet named. The exploring party of 1881, of Wright, Wales and Wallace, gave names to some of the most prominent. Mount Young, one of many huge peaks in that vicinity, was never named until that summer. Mr. Wales ascended it alone, on Tuesday, September 7th, with instruments, to take its altitude, build a monument and leave a record of its name, and the name of another handsome peak just south of it, which, from his suggestion, was named Mount Hitchcock.

It became evident, says Mr. Wright, that we were already in the heart of our least frequented Sierras, and that we could with propriety indulge in the pardonable pastime of mountain naming, where so many towering nameless peaks were piercing the blue sky around us. From this commanding point the view in every direction was superb—a really magnificent panorama of peaks and gorges, including the massive Kaweah group to the westward, and King's River divide, north of us. Immediately west of us was a bare granite cone or pyramid, with great snow masses (September 3d) on its northern and eastern slopes. This the party agreed, at Wright's request, to call

MOUNT GUYOT,

In honor of the distinguished Swiss geologist and geographer, whose lectures for two years at Princeton, New Jersey, are among the pleasantest recollections of his college days. The pass was also named Guyot Pass. The long, sharp, bare granite peak, just east of Guyot Pass, extending from southeast to northwest a full half mile, and with huge snow-fields along its crest, we named

MOUNT AGASSIZ.

We felt it was appropriate, that those who had been bosom friends in youth, and in Neufthatel, in Switzerland, and whose mutual, scholarly labors, as leading naturalists have done so much for American science since they made this their adopted land, should thus have their names closely associated among our snowy Sierra, so like their native Alps and Jura

Mountains. Mr. Wallace made the ascent of Mount Guyot, and built a monument on its top. He found its altitude was at least 13,500 feet. On the same principle, after they ascended Whitney, and from its summit had viewed, with Captain Michaelis and others, a number of newly-named peaks, and found many still unnamed, they decided, at Mr. Wales' suggestion, to call two handsome granite peaks, three or four miles west and southwest of Whitney, and on each side of the entrance to Whitney Cañon,

MOUNTS YOUNG AND HITCHCOCK,

The former on the north side, the latter on the south. These were in honor of Professor Young, the noted astronomer, now at Princeton, and Professor Charles Hitchcock, of Dartmouth, where Mr. Wales spent his college days. With our aneroid, Mr. Wales found that the altitude of Mount Young is about 13,600 feet, the mercury of the standard thermometer showing a temperature in the shade (on the summit) of 48°, and in the sunshine 66°. He built a monument some five feet in height, and in it placed the record of the naming of Mounts Young and Hitchcock.

Now as regards the manner in which these names were given: Mounts Michaelis and Langley, with Keeler's and Day's Needles, were named after the leaders of the scientific corps and their two assistants, Messrs. Johnson and Crapo, their California guides, and were afterward accepted by common consent.

By looking from the summit of Whitney in the direction indicated, Mount Michaelis can be easily distinguished as a handsome dome and large terrace on each side, looking altogether not unlike the section of a huge earth-work and its apron. Mount Langley, just to its left, is known by a minaret or obelisk, that seems to stand on the north edge of its summit. It is known among mountain prospectors as

MILESTONE MOUNTAIN,

And on clear days can be distinguished with a good glass, or even with the naked eye, from the plains of Tulare and Fresno Counties. Mounts Hazen and Benet were named by Captain Michaelis, after two of our Generals, his army chiefs. Hazen is a long, flat mountain, percipitous on its north side, and is marked on some maps as Table Mountain. Benet is easily distinguished as a very dark, almost black, double peak.

The noted Mount Brewer, named after the chief of one of Professor Whitney's geological parties, is readily known by its great height and its deeply notched top.

Mount Wallace is a tall, pyramidal peak, about midway between Tyndall and Benet. Mount Wales is a sharp peak just left of Langley, and is marked by a dark red iron-stain along its southern slope. Mount Wright is a high, regularly shaped sugar-loaf, just to the right of Hazen.

Captain Michaelis, of his own volition, named these last three peaks after the party of explorers we have mentioned.

OUR MOUNTAIN SCENERY.

So much of the Sierra Nevada mountain scenery, says Hon. E. C. Winchell, as reaches from Walker's Pass on Kern River, to Yosemite, on the Merced, a distance of two hundred miles, is the highest land in the United States.

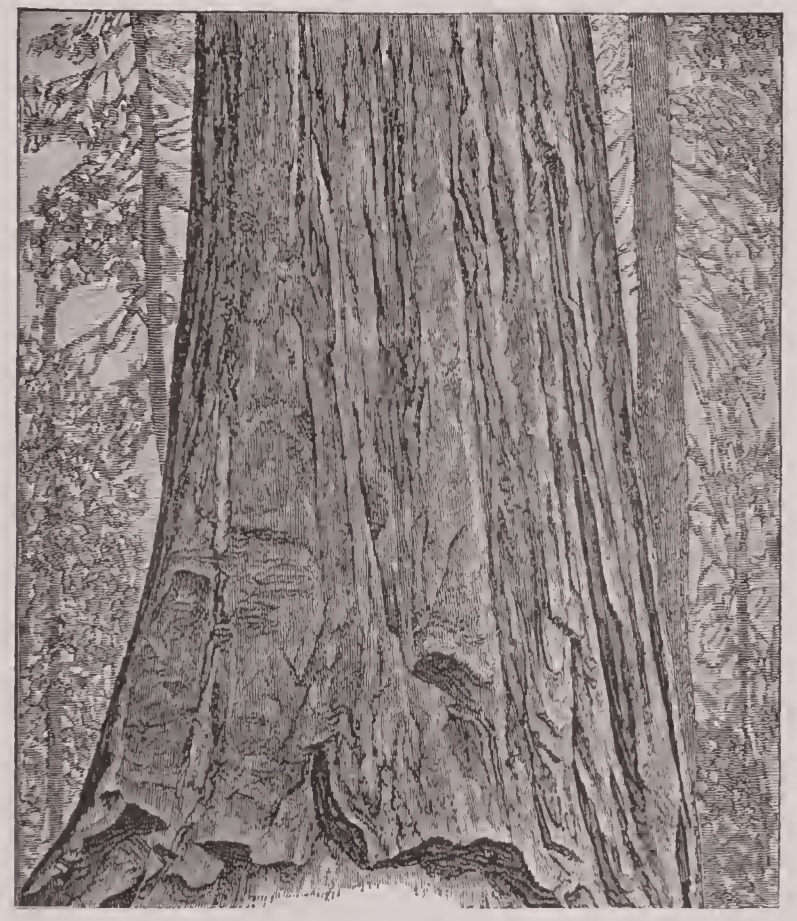
The trend of the range is northwest and southeast. The eastern front is bold and steep, falling abruptly down to Owen's River Valley, whose plain cuts the range at an elevation of five thousand feet.

A complete sketch of the western features of the Sierra between the Kern and the Merced, must include an outline of the visible traces of ancient volcanic action among its heights. The extent of such traces is as yet unknown, the geological survey being unfinished. For twenty or thirty miles along the San Joaquin they address every eye. From some old crater not yet discovered, broad streams of lava ran down the mountain side—filling and following ancient river beds down to the beach of the antediluvian sea which then submerged the San Joaquin Valley. Spreading over a gentle glacis and covering many miles of the old sea-shore, the fluid lava became solid. Time's sharp tooth has, since the sea fell back to its present line, gnawed away most of the lava fields. On the south bank of the San Joaquin, a mile above Millerton, is a bold escarpment, a thousand feet high, capped by a level tablet of black, basaltic lava, from ten to one hundred feet in thickness, according to the undulations of the original surface on which it lies. Ascending to the top of this table, the beholder finds it reaching back many miles eastward, having a slight incline upwards; that it presents a breadth of several miles, appearing on both sides of the San Joaquin River, which stream lies one thousand feet below him, in the bottom of a gorge that has been cut down, through the lava tablet and through the underlying hills of granite, since the molten flood cooled off. Looking westwards toward the plain, he sees numerous detached ridges and isolated hills, one or two miles in front and on either hand, capped with the same basalt, and all in the same plane, having a very gentle slope to the west; and far out in the plain, five or six miles distant, on the opposite side of the San Joaquin River, he beholds the terminus of the glacis distinctly and indubitably marked by a bold precipitous ridge two or three miles long, one hundred and fifty feet high, ranging north and south, capped with imperfectly fused lava and conglomerate, still in the same inclined plane with the other peaks, and which, by examination, he finds continuing still onward, into the valley.

These evidences indisputably demonstrate that ages ago a stupendous river of molten rock and earth was poured out of the western flank of the Sierra, from some high point east of Millerton, which, confined at first, perhaps, in deep, narrow cañons or river beds, found, as it neared the sea beach, more room to spread and widen, till, entirely disengaged from hill and gorge and approaching a low, gentle shore, it flowed to the right, left, andas forward into the seething waves that cooled it.

THE VISALIA ROUTE.

If you go by the Visalia Route, the first grove visited is about three miles north of the mill. A toll road, thirty miles long, winds in its length among the spires of the Sierra Nevada Mountains, and taps Mineral King Mining District, and enables the tourist to approach the wildest and most romantic scenery in the United States, at the head of King's and Kern Rivers. The living glaciers silently grind the subjacent rocks, and mountains whose majesty or grotesqueness are unsurpassed in this country, throw their sombre shadows across valleys as yet untrodden by the foot of man. But as one tourist after another scales these giddy heights, and from some narrow defile drinks in the beauty of the scene in the secluded valley below, a spirit of adventure is awakened which longs to commune with nature in her fondest seclusion, and erelong all these mountain wilds will be penetrated.


"Girdle" or Big Tree Partly Cut Down.

About three-fourths of a mile in a westerly direction, close to a stream, is a fine tree known as the "Girdle," or "Old Maid," which is eighty-six feet in circumference, very tall and straight. Some years ago some Vandal.st made an attempt to cut this tree down in order to get a section, but after cutting around was prevented by Mr. Willett, then register of the land office. The tree still lives and will in all probability for centuries.

A more stringent law should be enacted to prevent their destruction. They are monuments of vegetable growth which should be preserved for the admiration of the world that will through future ages ever gaze with wonder and amazement upon their magnificence and grandeur. While the trees of which we have spoken are confined to small groves, everywhere through the forest, for miles around, may be found trees of enormous size.

THE CLIMATE.

The climate through this section is delightful during the spring and summer months. It is cool and dry, and not subject to cold, frosty mornings, as that of many other mountainous countries. The scenery through the vicinity is magnificent. Huge towering peaks, deep gorges, and rocky cañons are among the interesting features. Bears and deer abound just beyond. Ten or twelve miles further on, and to the northeast, is the King's River Cañon, with its high walls and rugged cliffs, through which flows the King's River.

THE GENERAL GRANT.

"The giant of all living trees, called 'General Grant,' is growing on the edge of a ravine. We measured it and found it was 104 feet in circumference about four feet from the base, but through the carelessness of some one a portion of the tree had been burnt at the base, and if the tree had been symmetrical in form at the base there is no doubt of it measuring 120 or 125 feet. This tree, like all its competitors, though standing straight as an arrow for upwards of 300 feet, and without a limb for fully 200 feet, the extreme top has been broken off by the winds, or some unknown cause. There are limbs toward the top of this giant tree that look as though they would measure from nine to twelve feet in circumference. The age of this tree and the hundreds of others whose circumference is not so large as this one, I think is mere conjecture on the part of any man. There are about forty or fifty trees that can be seen from the General Grant, whose circumference will range from 75 to 100 feet each, and in height, from 200 to 300 feet, and perhaps a little higher."

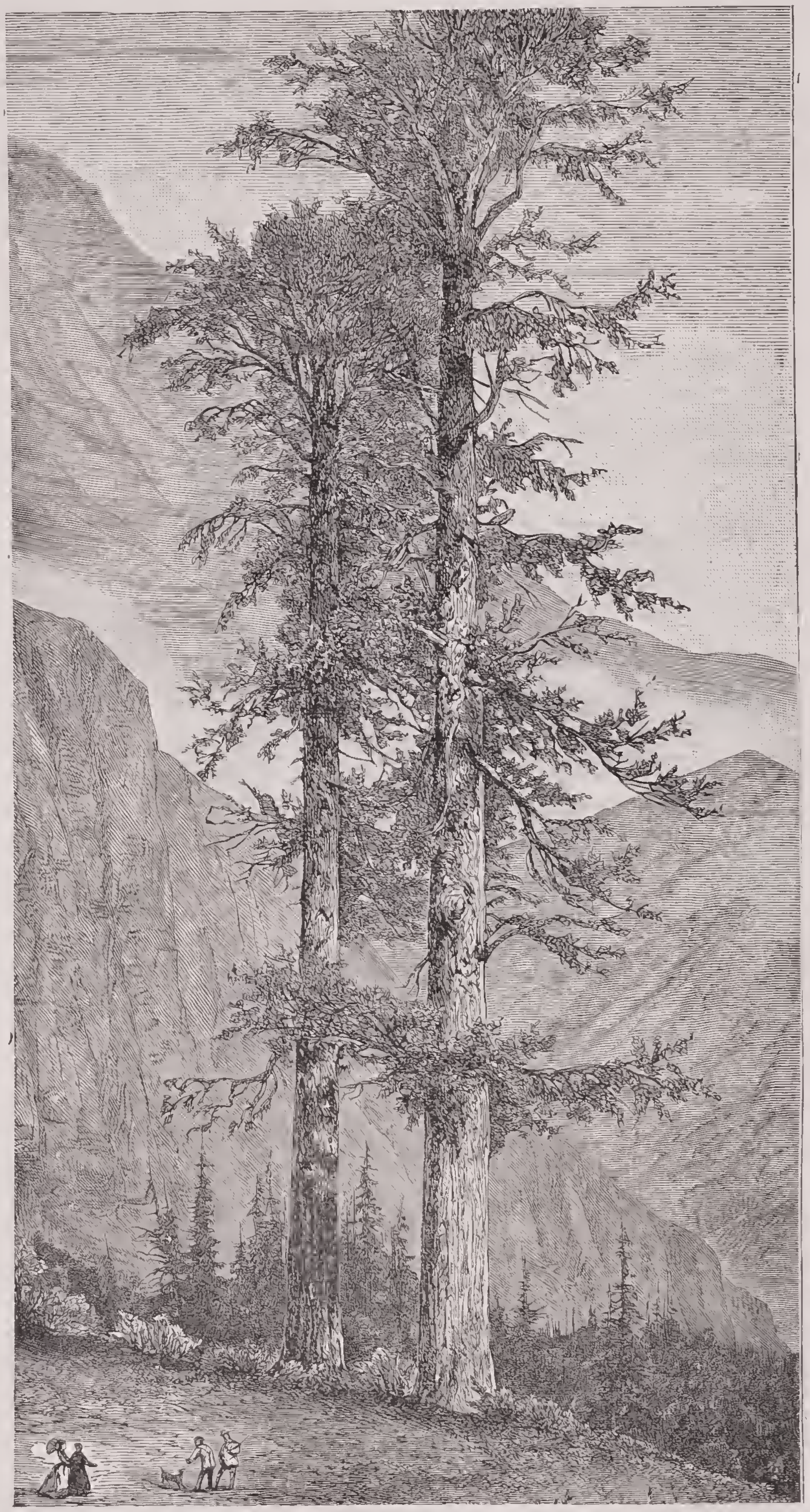
BEAUTIFUL SNOW PLANTS.

"In the basin close to the remaining snow was seen the wonderful snow-plant whose flower-stem shoots up in the shape of a large conic-shaped sugar-pine burr, and grows to a height of two and a half feet. The color of the flower is a bright crimson red; the shape of each blossom resembles the formation of a double hyacinth, and grows close and compact around the stem, the center of which is pithy and spongy. The bloom has four petals, is staminate and pistillate, and consequently it may be an annual.

HEAT AND COLOR OF THE SUN.

Wm. C. Wyckoff, in *Harper's Magazine* for June, says the Mount Whitney observations show the sun to be hotter than was supposed. The heat received at the earth's surface is probably more by one-half than was estimated by Herschel and Pouillet, and even materially exceeds the values assigned by more recent investigators.

Mount Whitney observations firmly establish the fact that the sun is blue. The particular shade of color which it has, if viewed without intervening atmosphere, may be laid down as that on the border of the blue near the green, about where the line F appears in the spectrum. Sad to say, this is not an "æsthetic" hue; it is more like that referred to in one of Southey's poems: "You could almost smell brimstone, their breath was so blue, for he painted the devils so well."



The "Twin Sisters" of Visalia Grove.

A TRIP TO MOUNT WHITNEY.

At our request, Rev. F. H. Wales, editor of the *Alliance Messenger*, furnished the following account of his trip in this region:—

"It was on a warm summer morning that our pack-train left Edward's Camp, on the opposite side of Farewell Gap from Mineral King.

"I had tarried here four days, waiting for Wright and Wallace, and had climbed 'Bullion Peak,' 12,000 feet elevation, just to try my pluck. Had also caught trout, and drank of that delicious soda spring a mile or so down the ravine, hunted grouse and quail, and geologized to my heart's content, and was really glad to get off.

"Down the ravine some six miles we struck the 'Hocky Trail,' and traversed its winding way, with steep mountains on every hand.

"At noon we halted in 'Round Meadow' for dinner, and, while Wallace attended the horses, and Captain spread the lunch, I took the rod and sampled the little stream which gurgled by our camp ground. By the time the fire was burning brightly and the kettle boiling, I had thirty-one of the beautiful 'rainbow' trout, the first we had seen.

BEAUTIFUL LAKES.

"That night we camped in a long valley known as 'Trout Meadow,' and next day arrived at Fish Lakes, where we tarried over Sunday.

"These are two picturesque little lakes caused by an avalanche from the mountains during the earthquake in 1868. Jo Palmer, one of the guides, told us he was camped near by and heard the terrific crash caused by the fall. He thought it the 'day of Judgment.' These lakes are filled with stumps of decayed trees and abound in fish,—trout, roach, suckers, chub, etc.

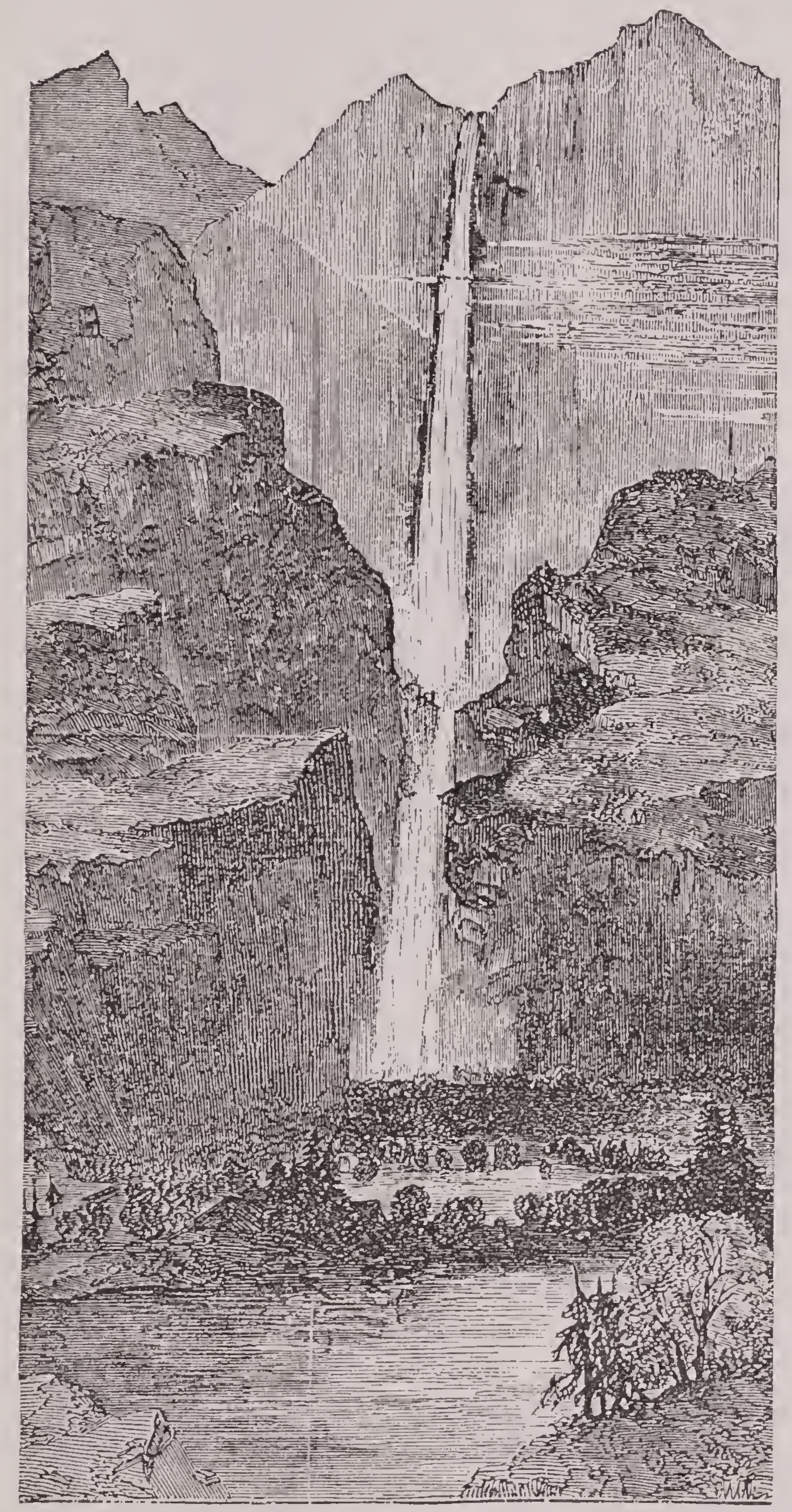
"Here we regaled ourselves on a two-pound silver trout which I caught while the Captain got breakfast ready. I had five of these beauties by the time the coffee was boiled.

"Two miles on we came to Runckle's, a ninety-acre ranch fenced in, and a few log houses, a kind of frontier tavern. Here boarded some four or five fishermen from Lone Pine, who fish in the lakes and pack the trout in wet grass, and on mules take them to that inland place, where a good market is ever ready. "Runckle keeps a stock of such things as mountain travelers and sheep men need. Here is a good soda spring, also.

"Crossing the Kern here we passed the natural bridges formed of 'tufa' rather than lava, as we at last decided by an application of vinegar.

"We spent that night at Red Mountain, one of the most perfect extinct craters imaginable, formed like an oval bowl on top, with one side crushed out, and the river of lava, stretching miles away, easily traceable.

"Here we should have gone directly to Laguna Camp, but we were misdirected and went round by Diaz' meadows. He is a Spaniard who has a large sheep and cattle range. Crossing over Cora Whitney Pass, at 1,200 feet altitude, we reached Laguna Camp.



SHA-GOO-PAH FALLS, 3,000 FEET HIGH.

THE PALISADES.

"Next day we ascended through 'Rampart' Cañon, one of the grandest places on the route, a beautiful dell of 1,000 acres, surrounded by palisades from 500 to 1,000 feet high and apparently vertical. At Rampart Pass we caught sight of what we supposed to be Mount Whitney. It proved to be the Kaweah group. Our trail here averaged from 10,000 to 11,000 feet high much of the time. Passing Mills Mountain and Guyot on the left and Agassiz on the right, we caught a glimpse at last of Mount Whitney's oval dome, with Mount Hitchcock guarding it on the right and Mount Young on the left. These are 13,600 feet high.

"A good trail now leads up to the very summit of Mount Whitney, and even mules have been there. Some six or eight parties had visited the summit before our own, and the United States party, under Professor Langley, was there at the time. [See *Harper's Monthly* for May, 1883.]

A GRAND CAÑON.

"We went as far north as Mount Tyndall, whence we could look down upon the head-waters of the south fork of King's River; then turning south passed down one of the grandest cañons in the world. With steep acclivities almost vertical, from 2,500 to 3,500 feet in height, five falls came tumbling over and turned to spray before reaching the bottom.

"A grand resort for the sportsman, and we conceived, and, together with the scientific party, developed the scheme of having this whole country, twenty by thirty miles—which is, and, from its location, must ever remain, a wilderness—set apart by Government as a public park, similar to the Yellowstone.

LIVING GLACIER AND PINK SNOW.

"Leaving this magnificent scenery, we doubled and passed up Jenny Lind Cañon, at the very head of which we found a small living glacier and quantities of pink snow, in which our tracks looked like blood. Acres and acres of glacier-polished rocks are on every side, proving what the past has seen in these parts.

"Having ascended Mount Kaweah, 14,000 feet high, and finding no evidence that any one had ever preceded us, we built our monument and left our diary there. Winding a tortuous way round Cliff Pass, among precipices steep, and inland lakes of surpassing beauty, we at length reached Mineral King *via* Timber Gap, and next day ascended Miner's Peak, 14,200 feet high."

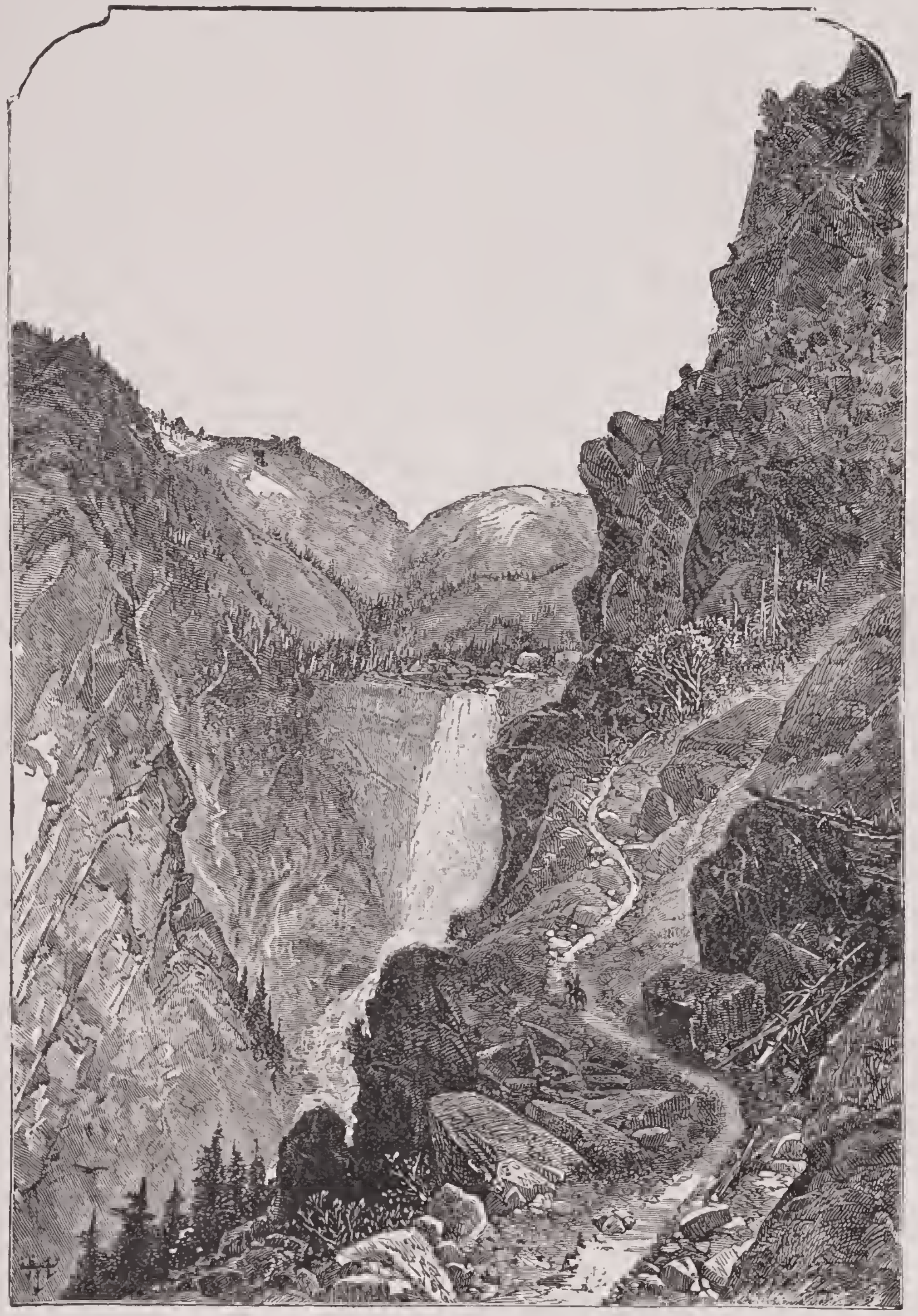
NAMES AND HEIGHT OF MOUNTAINS.

Altitudes of peaks of Sierra Nevada of Tulare County, California: Mt. Whitney about 15,000; Mt. Williamson, 14,400; Mt. Tyndall, 14,386; Sheep Mountain, 14,300; Mt. Henry, 14,200; Mt. Abert, 14,100; Mt. Kaweah, 14,000; Mt. Brewer, 13,886; Mt. Young, 13,600; Mt. Guyot, 13,500; Mt. Garfield, 13,100; Miner's Peak, 12,800; Mt. Silliman, 11,600.

Mt. Agassiz, Mt. Hitchcock, Mt. Le Conte, Mt. Mills, Mt. Michaelis, Mt. Hazen, Mt. Langley, Mt. Benet, Mt. Wallace, Mt. Wales, Mt. Wright, and Mile Stone Mountain are all between 13,000 and 14,000 feet, but they have never been measured exactly.

GRANT'S WHITE SULPHUR SPRINGS.

These springs are in the southeastern part of Mariposa County, within a mile of Fresno County. Except to the neighbors, they were unknown, and outside of the world, until purchased by Judge Grant, of Iowa, eighteen months ago. He has built a first-rate wagon-road from Madera and Borenda to these springs, and extended it to the Mariposa road, to Yosemite, thirty-nine miles distant, at Cold Spring.



Scene in the Sierras.

There are 13 springs; the ground and rocks are of a white color, and are charged with sulphur, iron, and magnesia; they are said to discharge the largest volume of water of any mineral springs in California. The water makes a cubic column of eight inches and supplies enough to water eighty acres of land. The springs are in a gorge of the mountains 3,200 feet above the sea, and, being on the shortest road from the railway to the Yosemite, will become a favorite resort for tourists and invalids.

THE NEW HOTEL.

A good hotel has just been completed, with baths from the mineral waters, and the owner will not only have it well kept but will not permit any extortion on visitors. The waters are said to be curative of all diseases of the blood and dyspepsia. The climate is twenty degrees cooler than on the plains below.

GRAND AND INSPIRING.

Silence reigns on the heights of the Nevadas save when the scream of the Sierra eagle or the loud report of the avalanche interrupts the frozen stillness, or when in symphonious fullness a storm rolls through the vacant cañons and exhausts its fury upon the impenetrable rocks.

"Our Sierras," says W. B. Wallace, "hold in their depths riches other than gold and silver. The student of nature can here find much that will sharpen his perception, and augment his knowledge. There is something ennobling in mountains. The mountain-climber obtains ideas of vastness, of intensity, and of sublimity, which the plainsman never realizes. And there is a fascination in his wild life which, when it has once laid hold on the individual, reluctantly loosens its grasp. He finds health, strength, quietude, and suggestive facts in his surroundings, and when fatigued by weary rambles, he obtains comforting repose on a rock pillow, and lulled to sleep by falling waters, and the sad, sweet music of swaying pines, he dreams dreams that are iris-hued.

EASILY DECEIVED.

An attenuated atmosphere disturbs one's ideas of distance. Not unfrequently a man sets out to climb a mountain ridge he estimates to be but two or three miles distant, and after traveling half a day discovers that he has undertaken a walk of eight or ten miles. The atmosphere of these elevated regions seems to be a vital and invigorating air.

Granite mountains do not always take on the same form. That which they most commonly assume is the dome shape, similar to the Castle Peaks of Yosemite.

This article on the preceding pages entitled "Grand and Sublime Scenery," is now issued in pamphlet form, making a book of about eighty pages. It also contains a large number of other engravings from sketches by Wales and Eisen, and from photographs by Dusy. It may be had on remitting the price, fifty cents, to the publishers, W. W. ELLIOTT & CO., 421 Montgomery Street, San Francisco, Cal. It is a good work to send to your friends and induce them to visit this scenery. The object of this little work is to call the attention of our own people, as well as those who may visit us, to a comparatively unknown and unexplored region abounding in Grand Scenery, wild and unvisited by tourists. It thus affords all the more pleasure to lovers of nature in all her undisturbed glory and grandeur. Hoping these imperfect pages and sketches may incite others to a thorough exploration and penciling of our Alps, is our only hope of reward.

BOTANY OF THE COUNTY.

BY PROF. W. A. SANDERS.

NO COUNTY in California surpasses this in number and variety of indigenous plants, extending, as it does, from the Alpine region of the high Sierras, downward across a large area of mountain, swamp and heavy forests, deep shaded cañons, high foot-hills, low hills of clay and gravel, river bottoms, broad plains and alkali flats along the region from Tulare Lake to the San Joaquin River, each with a flora distinctly its own. Over 1,500 species of plants are known to exist in this range of soil and climate. To name and give location of all these would demand more space than our present limits, so I have determined to omit the unimportant, and in doing so have discarded the botanical arrangements of orders and genera, and have arranged them in a manner that to the scientific reader may recall (perhaps with an inclination to sneer) Buffon's classification of animals into "Wild and Tame," but to the non-botanical reader I trust it will be acceptable.

FOREST AND TIMBER TREES.

SEQUOIA GIGANTEA, "Big Trees," a division of the Coniferæ or Pine family. Fresno County contains more of these than all the rest of the State. On the north side of King's River they occur only in isolated groves, always among other trees, notably on Dinkey Creek, and on Fresno River. On the south side the growth is more general, in some places forming a principal part of the forest, including all sizes, from the giant of over a hundred feet circumference, with a height of from 350 to 400 feet, down to the clustered seedlings of a single year's growth. The wood is of a dull red or purplish color, soft and easily split, but is almost indestructible in its resistance to rot. It is of very even grain, giving it that sonorous quality so necessary in woods used in the construction of pianos, organs, etc. They grow at an altitude of about 5,000 feet on the Sierras, in a region of heavy snows, and freezing during a long winter, adapting them to growth for shade, ornament or timber, over the large area south of the Ohio River.

SUGAR PINE, *Pinus Lambertiana*, is found with the Sequoias, and is of more general growth throughout the mountains. A tree of gigantic dimensions, 150 to 300 feet high, and 10 to 20 feet in diameter, with light-brown, smoothish bark. From this tree is obtained most of our rived lumber, including shingles, shakes, pickets, etc. An exudation from the wood of partially burned trees possesses a sweetness like sugar, whence the common name of the tree. This "sugar" is an active cathartic.

YELLOW PINE, *Pinus Ponderosa*, the most plentiful of our mountain pines, equaling the sugar pine in size, but distinguishable from it by its longer leaves, and the broader divisions of its bark. Valuable for sawed lumber, but not easily split.

DIGGER PINE, *Pinus Sabiniana*, the pine found in the Sierra foot-hills, an open-branched tree, sometimes attaining a diameter of five feet, with leaves ten to twelve inches long, is of no commercial value except for fuel and manufacture of charcoal. The nuts which it produces, constitute one of the articles of Indian food. The "Nut Pine" of the Coast Range foot-hills is *Pinus Coulteri;* closely resembles the preceding.

The so-called TAMARACK in the Sierras found along creeks at altitudes of from 4,000 to 8,000 feet, is *Pinus Contorta*, var. *Murrayana* of our botanies. The tall, straight, strong trunks of the small trees grown in thick groves are valuable. *Pinus monticola*, *Pinus flexilis*, *Pinus Balfouriana*, and *P. Jeffreyi*, are found in the high Sierras, but are at present of no commercial value. A HEMLOCK, *Tsuga Pattoniana*, is found sparingly in the high Sierras. The DOUGLAS SPRUCE, *Pseudotsuga Douglasii*, is found with the preceding. FIRS grow in the same locality. The RED FIR, *Abies Magnifica*, WHITE FIR, *Abies concolor*, are both large timber trees. The latter extends into the lower mountain forests. The CEDAR of the Sierras, *Libocedrus decurrens*, is found in its perfection, from the higher foot-hills up to 8,000 feet altitude. It sometimes attains a height of 200 feet. There are two distinct varieties, the one of them found only in the lower mountains, has red wood of great durability, and where standing alone, has a growth of dense-foliaged limbs from the ground to the top. 'Tis one of the most valuable trees that can be grown for shade ornament or production of timber. 'Tis a rapid grower, grows readily from seed, and no other tree of equal beauty possesses as great ability to stand drought, heat, or frost. The white-wooded variety has a long, tapering, limbless trunk. It is wholly unfit to grow for shade or ornament. Its timber is not valuable.

ARBOR VITÆ, *Thuja gigantea*, a tall, graceful tree found sparingly in the high Sierras, resembles the preceding, but distinguishable by the seeds, which are but one-fourth of an inch long, while those of Libocedrus are a half-inch in length. JUNIPER, *Juniperus Californica*, is the small evergreen tree found so abundantly in the Coast Range in our county. YEW, *Taxus brevifolia*, is found sparingly in the Sierras; the NUTMEG TREE, *Torreya Californica*, is also similarly found. "YELLOW WOOD," known to exist in the Sierras, on upper King's River only by its timber having been found in the piles of floodwood, is supposed to be allied to one of the two preceding.

OAKS.—Eight species of oaks are found in this county. FOOT-HILL OAK, *Quercus Douglasii*, is the common scrubby oak of the foot-hills. BURR OAK, *Q. Lobata*, is the large oak with drooping limbs, common in the valley along creek and river bottoms. Both of the above yield great quantities of acorns, valuable for feed. *Q. Breweri* and *Q. dumosa* are the shrubby oaks, from two to ten feet tall, of the higher foot-hills, sometimes produces acorns as large as a Guinea hen's egg. *Q chrysolepis* has ash-gray bark, and dense evergreen, foliage.

Wood is hard and valuable. A desirable tree for shade or ornament. *Q. agrifolia*, is the common black live oak of the foot-hills. Good for fuel only. *Q. Wislizeni*, an evergreen, resembles the preceding, but is found only at altitudes above it, and is a larger tree with valuable wood. *Q. Kellogii*, resembles the preceding, except that it is deciduous.

WILLOWS.—At least ten species of willows grow in this county. The largest, *Salix lævigata*, common on all the river banks sometimes attains a height of sixty feet, with three feet diameter of trunk. There are two or three varieties of this species. *S. sessilifolia*, is the cottony-leafed willow of the rivers. Sometimes in dense groves, the slim, smooth trunks reach a height of forty feet. Both of these are valuable for trunks on which to bud or graft the weeping willow. By this means, in a single season, beautiful drooping tops, a dozen feet across, can be made on trunks anywhere from ten to thirty feet in height. *S. lasiandra*, with long, narrow-pointed leaves; *S. Cordata*, with pointed leaves, some of them approaching to heart-shape, are found along mountain creeks. *S. Monica*, and *S. arctica*, are small shrubs found among the highest Sierras; the latter is a creeping shrub, and is often found covering large areas.

POPLARS, Cottonwoods. Three species of these are found. *Populus tremuloides*, "Quaking Asp," is the poplar found in the Sierras, on marshy ground at from 4,000 to 8,500 feet altitude; it has very white bark. *P. trichocarpa*, is the cottonwood, with smooth bark, found in the mountains. *P. Fremonti*, is the large tree with gray, cracked bark, found sparingly along Wautokee Creek, and constituting the chief amount of timber along the Posé Chiné.

Sycamore, *Platanus racemosa*, is common along most of the rivers and creeks in the valley portion of the county. Ash, *Fraxinus Oregana*, (Spanish name, "Fresno,") the tree from which that county and one of its rivers take their names, is common along the banks of streams; is a small tree with tough, hard, valuable wood. Alder, *Alnus rhombifolia*, is generally found with the preceding; it sometimes reaches a height of fifty feet and three feet in diameter. Dogwood, two species of this, *Cornus Californica* and *C. pubescens*, are found along the mountain creeks at 2,000 to 5,000 feet altitude. They are shrubs twelve to twenty feet in height, with large, white flowers, and very hard wood. Maple, only one of these, and that but sparingly, *Acer macrophyllum*, a tree sixty feet in height, is found along the upper course of the San Joaquin and King's Rivers. Buckeye, *Æsculus Californica*, common over all the foot-hills, is sometimes a broad-topped tree forty to fifty feet in height. In May, when in full flower, they are beautiful, but as they shed their leaves in summer, they are not desirable for shade or ornament. Wood of little value. Madroña, *Arbutus Menziesii*, a tree with large leaves, and bark resembling a manzanita; rare in our mountains.

Manzanita, *Arctostaphyllos*. At least seven species of this beautiful heath are indigenous to this section. *A. glauca*, sometimes twenty-five feet in height, found in the Coast Range; fruit three-fourth of an inch in diameter, seeds consolidated into a globose woody stone. *A. Andersonii*, ten feet tall, pale bark, Coast Range cañons. *A. tomentosa*, ten feet in height, common found on all foot-hills. *A. pungens*, larger than the preceding where found growing with it, but becoming quite small on the high Sierras. *A. Uva-ursi*, a creeping, smooth-leaf variety on the high Sierras. *A. pumila*, similar to preceding but erect; Coast Range cañons; very rare. *A. bicolor*, stems nearly bare of leaves, which are found only at the end of the branches; three to four feet in height; fruit yellow, size of a pea.

Birch, *Betula occidentalis*, a single species in the high Sierra cañons, at 10,000 feet altitude. A small tree twenty feet in height, broad, thin, oval leaves. Fremontia Californica, a branching tree, twenty-five feet tall, one foot through at base, hard wood, yellow flowers, a hands-breadth across, in early spring: leaves thick, hairy, rusty beneath, usually three-lobed. Bark possesses the same qualities as "slippery elm." Grows on the high foot-hills near the lower range of yellow pine. Mountain Laurel, *Umbellularia Californica*, a tree sometimes fifty feet tall, with green, shining, lance-shaped leaves four to five inches long. Wood, bark, leaves and flowers are aromatic. It belongs to the same family as the Camphor, Cinnamon, and Sassafras trees.

It is found at an altitude of 1,000 to 2,000 feet on both the Sierras and Coast Range. Cercocarpus parvifolius, locally known here as "*Mahogany*," is found growing with the preceding. It is an arborescent shrub, ten to twenty feet in height, leaves hairy or silky above, one-half to one and a half inches long, veins prominent beneath. It has a hard, heavy, dark-colored wood, susceptible of a fine polish.

Of Naturalized Trees I would not speak but for the reason that some are so perfectly adapted to growth here, and are being raised by tens of thousands, so that their abundance and size in future years will cause a doubt as to whether they are not native to the soil. Black Walnuts have grown over twenty feet in height, and over a foot in diameter, and have borne a crop of nuts, at five years old from seed. Chestnuts have also borne a crop of nuts at five years of age. Pecans and Maderanut trees make nearly as great a growth, as also do Basswood (*Tilia Americana*), Elms of several varieties, Mulberries, red, white and black, White Ash, Tulip tree (*Liriodendron tulipifera*), Soft Maple, Box Elder, Catalpa, Ailantus, Lombardy Poplar, while the Carolina Poplar (*Populus monilifera*), surpasses them all in growth, having grown here on my place, symmetrical trees over thirty feet in height in three years from cuttings. Different species of Eucalyptus also make an enormous growth, from eight to fifteen feet in height per year, but they are not hardy enough to stand the frost in most parts of the county. Locusts, black, honey and yellow, have also been successfully grown, also some varieties of Acacia, as well as Osage Orange, and several exotic Pines, Cypresses, etc. This list though but partial, I trust contains many naturalized trees that will largely supersede the indigenous varieties within the coming fifty years.

BEAUTIFUL FLOWERS.

This is pre-eminently the land of flowers. Nearly half the year the landscape is covered with a beauty rivalling the most brilliant cloud in magnificence, of purple, gold and crimson, flecked here and there with touches of heaven's deep blue. Would you study these flowers; do you wish to know their interior beauties; would you penetrate the mysteries of their growth? You must know them by their names, that you may study in botanies what science has learned concerning them, and to this end, come with me,—let us take each other by the hand that we may the better obey the command of Wisdom, "Consider ye the lilies of the field."

Nemophila insignis, a terrible name for our first flower of winter, the blue "Baby Eyes" of our plains! But all these long names have a meaning. This comes from Greek, *nemos*, grove, and *philos*, lover, "Grove-lover," so called from the original type of this family, found abundantly in the Southern States, always growing in the shade of dense groves of trees. Another flower of this family, Nemophila maculata is found on the creek near Behring's store, and generally along creeks in the mountains at altitudes ranging from 4,000 to 8,000 feet. It grows six to ten inches in height, and has blossoms an inch in diameter, white or rose color, blotched with spots of brilliant dark purple.

Eritrichium Chorisianum, "Woolweed," is the second flower that blooms in winter. It grows a foot in height, has hairy stems and leaves, and small, white, fragrant heliotrope-like blossoms It is valuable for feed for stock, also makes good greens or salad for the table.

Dodecatheon Meadia, "Johnny-jump-up," of the clayey foot-hills, blooms at same time. These are followed by myriads of flowers, among which are: Eschscholtzia Californica, the large yellow or Fremont Poppy, with flowers from two to four inches across, usually consisting of four bright orange petals, satin-glossed. Also of the poppy family we have Platystemon Californicus, "Cream Cups," little cream or lemon-colored flowers, often double, each on the top of a hairy stem a foot or two tall; common in old fields; and Meconopsis heterophylla, a beautiful poppy-like flower of our Sierra foot-hills; not common.

Gileas in places cover the landscape. At least seventeen species of these are found here. *G. dichotoma*, with slender black stems a foot in height, and pearly white blossoms nearly an inch in diameter. *G. tri-color*, with branching stems a foot or two tall, filled with blossoms a half inch across, somewhat cup-shaped, and variegated with purple, rose and lavender. *G. pusilla*, two to six inches high, covering the ground in places with a mat of hair-like stems, blossoms abundant, delicate, purple, rose or white, a half inch or less in diameter. *G. androsacea*, a foot in height; small, rose or white flowers, clustered on a prickly head; Sierra foot-hills. *G. Viscidula*, like preceding but smaller, flowers bright blue or yellow; clay lands, lower foot-hills and plains. *G. Capitata*, "Blueheads," in sandy hollows, stems one to three feet, few leaves, flowers sky-blue, clustered in heads or tassels. *G. achilleæfolia*, like preceding but stouter; flowers larger, less compact. The other species are less common. Clarkia Elegans, brushy Sierra foot-hill; stem two to four feet, usually branched; flowers composed of four petals, showy; purple or violet; nodding in the bud. Phacelia tanecetifolia, covering the ground in places; tansy-like leaves, stems two to four feet, flowers abundant, small, arranged along the curling ends of the branches; light violet or bluish. Calandrinia Menziesii, a low succulent plant, resembling portulacca; flowers a half inch or more across, ranging in color in different varieties from bright crimson to purple; a valuable feed plant. Abounds on Jackson's place near Centerville. *C. pygmæa*, a species with large fusiform roots, red flowers; Sierras, 8,000 feet. Of Lupines our county has fourteen species, mostly shrubby; palmate leaves; bean-like flowers and seeds. *L. arboreus*, in foot-hills, notably about Auberry Valley, two to ten feet tall, flowers yellow. *L. rivularis*, flowers blue or violet; above Jackson's on King's River. *L. albicaulis*. small; common on the plains east of Selma. *L. confertus*, flowers rose-color; Sierra foot-hills. *L. aridus*, dwarf shrub; high Sierras. *L. leptophyllus*, on King's River; flowers bluish-lilac, with crimson spot. *L. sparsiflorus*, small, slender; flowers violet, very small. The others are unimportant. The Judas Tree, "Red-bud," is a common arborescent shrub usually growing in bunches along creeks in the foot-hills conspicuous from its abundance of red bean-like flowers, which cover the branches in spring before the leaves appear.

Two Collinsias, a large variegated purple one is found in the foot-hills, and a small white one on sandy places on the plains. An Orthocarpus, "Owl clover," is common; another *orthocarpus*, not resembling the above, that from the peculiar form of its petals, is called "Yellow-puffs," grows about Riverdale. The so-called "Buttercups" of the plains are not buttercups at all, but are Evening Primroses. Here are also three species of red or purple primroses. In the Sierra foot-hills are two species of Honeysuckle, both climbers, with woody stems; a Clematis (Virgin's Bower), also a climber, is found among the shrubby woods of the higher foot-hills. It is recognizable by the hair-like appendages to its seeds. Of flowers on tall, leafless, flower-stalks, with succulent, grass-like leaves at their base, and growing from bulbs, we have Bloomeria aurea, yellow, six-pointed, abundant on Sayle's Creek in early spring. Brodiæ grandiflora, three to six feet, flowers varying from rose to purple; brushlands of Sierra foot-hills. B. MINOR, similar to the above, but only a foot in height. B. CAPITATA, the funnel-shaped, so-called "Blue lily" of the plains. B. BRIDGESII, similar to preceding, but darker blue, and found only on clayey soil. B. LAXA, the most common species; heads of small, clustered flowers. Of Lilies, the WASHINGTONIANUM is found in abundance in several isolated meadows in the Sierras. *L. Parryi, L. parvum, L. pardalinum*, are also found here. *Calochortus luteus*, "Butterfly Tulip," is abundant along the Sierra foot-hills.

One YUCCA, *Y. Whipplei,* is found in the southwestern part of the county, near the Hot Springs. Caudex, ten to twenty feet tall, the upper half of it covered with large white or cream-colored, lily-like blossoms, during spring.

THE SUNFLOWER family has so many representatives here that we can give only the more conspicuous a passing notice. LAYIA PLATYGLOSSA, "Tidy-tips," is the common little yellowish sunflower, two inches across, with petals white or white-tipped. *L. pentachæta*, a foot or two in height; common, golden yellow. CHÆNACTIS *glabriuscula,* is the branching, profuse-flowering plant, a foot tall; flowers an inch or two across, each a collection of closely-set small flowers. MALACOLTHRIX CALIFORNICA, is the beautiful, aster-like flower, two or three inches across, with a purple spot in center. TROXIMON CHILENSE, closely resembles the dandelion, which is not found in our county. SONCHUS ASPER, "Milk thistle," plentiful below Centerville. GOLDENROD, we have two of these: *Solidago Californica*, growing on dry ground, and *S. elongata,* growing in damp cañons and meadows. One ASTER, *A. salsuginosis,* with flowers one to two inches in diameter, is found in the Sierras at 6,000 to 10,000 feet. ERIGERON, *Canadense* (horseweed), constitutes the principal growth along irrigating ditches. Of COCKLEBUR we have two species: *Xanthium strumarium,* the common species, and *X. spinosum,* found sparingly on King's River bottoms. We have also two SUNFLOWERS, *Helianthus annus*, the common, branching, rank-growing, noisome weed, and *H. Californicus*, similar in appearance; more rare; damp places; large tuberous rootstock. One LEPTOSYNE, *L. Stillmani*, is common; yellow cup-like flower, an inch across, on single stems of a foot or two length, upper half generally leafless; grows in clayey hollows where water stands in winter. Several species and varieties of TARWEED grow here, the most common of which is *Madia elegans*, too well known to need description. BÆRIA *chrysostoma*, the little sunflower that grows so abundantly in deserted sheep corrals.

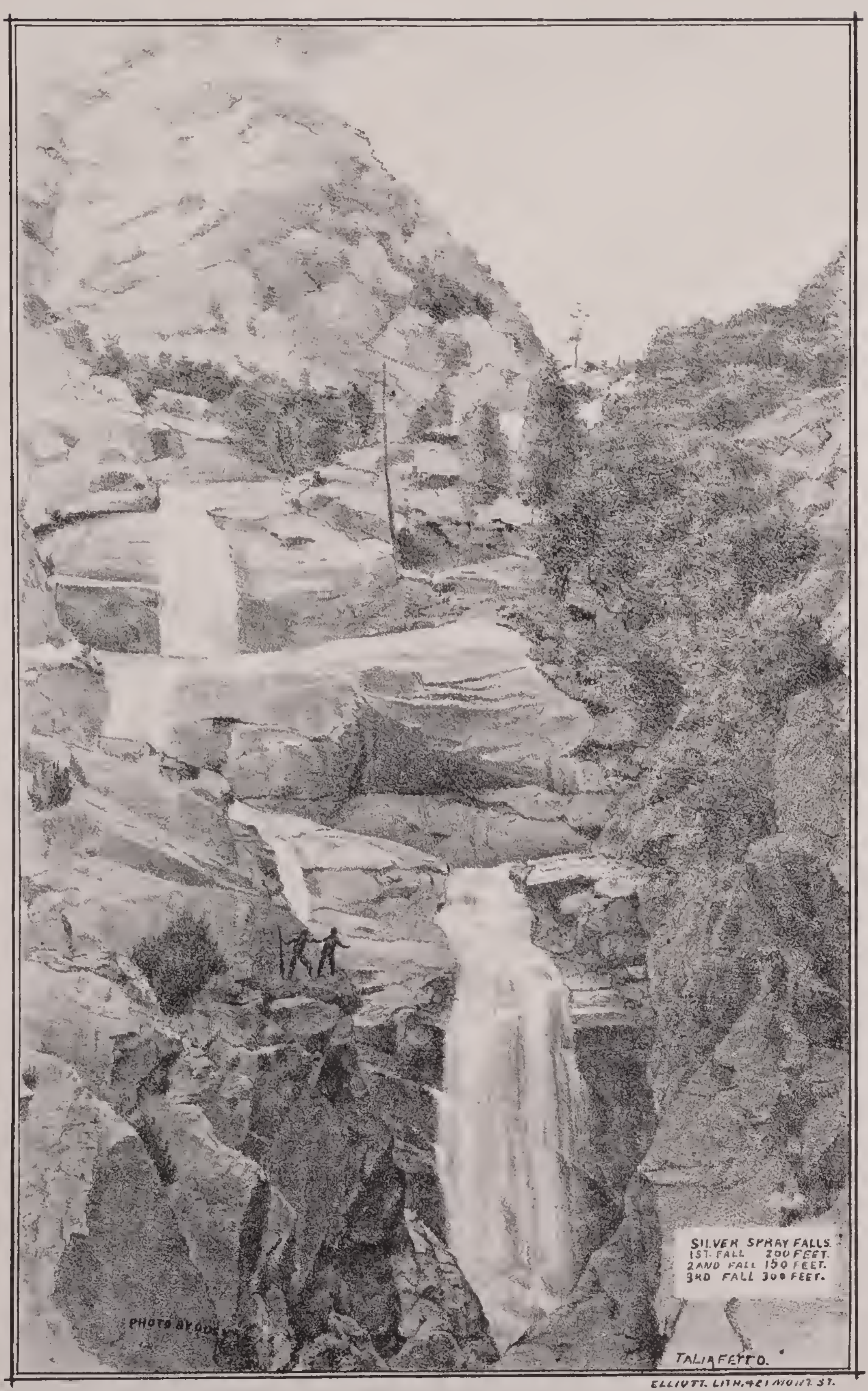
Our wild wormwood on the river is the ARTEMISIA VULGARIS of botanists. HEMIZONIA PLUMOSA (formerly *Calycadenia plumosa)* is the last of the sunflower family to blossom in spring. Stems two to three feet, very much branched, flowers numerous, three-fourths of an inch in diameter, lemon-colored. Formerly covered large areas of the plains; remains in bloom till mid-summer.

ECONOMIC BOTANY.

The most valuable advice to all dwellers on the "Plains" is, PLANT TREES. They add to salubrity of climate by protecting the earth from sun, heat, and drying winds, also by bringing up moisture by their roots from great depths, and evaporating it through their leaves. In winter, too, they modify the degree of cold. Plants do not frost-kill as early in winter, nor as badly, near timber as elsewhere. Douglas, the Illinois nurseryman, announced twenty years ago that fruits and plants can be grown in a climate much colder than is natural to them by planting within enclosing shelter-belts of lofty evergreens. That prediction is a verified fact in thousands of orchards on the western prairies to-day. Fruits are being grown within surrounding shelter-belts of evergreens hundreds of miles north of where they could be grown without protection.

Never plant evergreen trees when the ground is cold. The best time to plant them is early spring. The sap of these trees consists of a watery juice and a pitchy or resinous matter combined. The compound is the same whether found in the trunk, the large roots, or the small, hair-like, fibrous roots. The exposure of these very delicate root-fibers to the heat of the sun, or the equally drying action of the wind for only a few minutes, may cause the watery part of the sap to evaporate, leaving only the pitchy portion. This can never again, by any amount of moisture or soaking, be made to circulate, or perform the functions of sap in the tree, which must inevitably die as a result. Trees gather food from the earth through their spongioles or minute mouths found at the ends of the hair-like root fibres. Be careful then to preserve the little hair-like roots—preserve them to their ends, for in the ends of these is the life of the tree. It is for the purpose of causing these "feeders" to form in masses near the base of the tree that nurserymen so often transplant evergreens, to insure an unchecked growth after the removal.

The LIBOCEDRUS is the most desirable evergreen for all parts of our county. No other tree equals it in ability to stand heat, drought and frost. Its roots run very deep into the earth, thereby making it stand firmly in the most exposed situations, and leaving the earth right about its very base in condition to produce anything that you may ever wish to cultivate under the shade of the trees. By a tall inclosing "shelter belt" of these trees, and a few piles of manure within, wetted so as to heat and steam during frosty weather, the most tender tropical plants may be grown anywhere in the great valley of California. Eucalyptus are desirable only in the foot-hills, where there are no injurious frosts. DECIDUOUS trees should constitute most of your planting. They are preferable for shade about one's residence, as they do not exclude the sunlight in winter when it is needed; also for shade, so necessary here for all kinds of live-stock: as also to protect from sun and wind

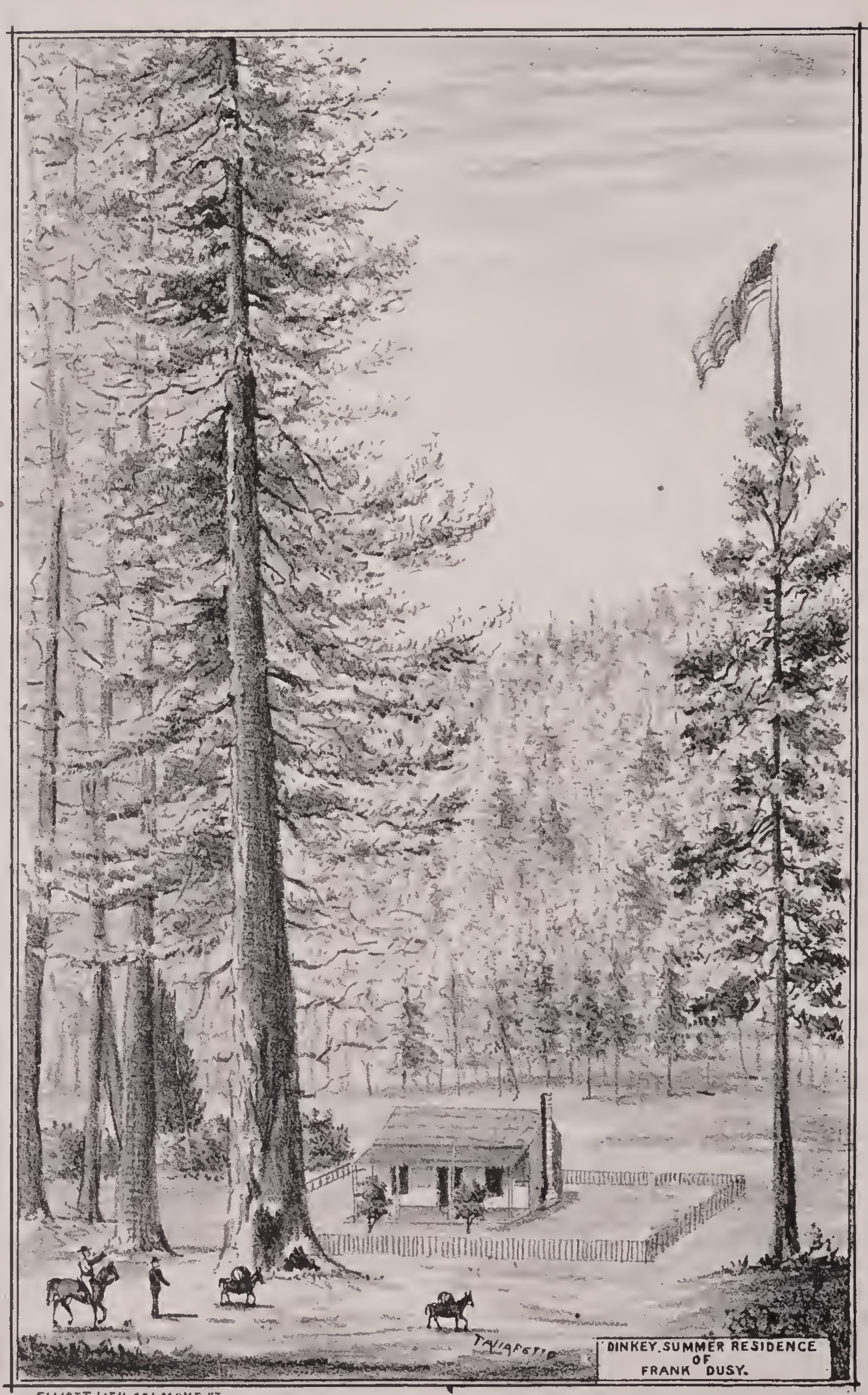


SILVER SPRAY FALLS.
1ST. FALL 200 FEET.
2AND FALL 150 FEET.
3RD FALL 300 FEET.

PHOTO BY DUSY.

TALIAFETTO.

ELLIOTT. LITH. 421 MONT. ST.



DINKEY, SUMMER RESIDENCE
OF
FRANK DUSY.

TALIAFETTO

ELLIOTT LITH. 421 MONT. ST.

wagons, mowers, etc., they are best—even better than a wooden building, which neither shuts out nor counteracts the drying winds, besides its liability to fire, from which these shade trees are exempt. The Carolina poplar is most desirable for the above use, because its growth is most rapid and symmetrical, besides it can be bent and pruned so as to produce any form or density of shade desired. Of other trees that you should plant along ditches, roadsides—everywhere where trees can be made to grow, walnut, chestnut, Madeiranut, pecan—all nut trees of easy culture and rapid growth, are most desirable. In addition to value of timber produced, their yearly crop of nuts will bring you a large sum. I have black walnut and chestnut trees only five years old from seed now bearing a crop of nuts. In the raising of FRUITS your object should be to have the earliest, the latest, and the *best* in its season, of every variety. As success in tree culture demands so widely different practices in different localities, I give from my experience of over twenty years in tree-growing, by irrigation in the hot climate of interior California, the following directions for

CULTURE OF FRUIT TREES.

Plow your ground very deep in February. Then plow out your ditches for irrigation. Fill them with water to settle the ground, and get the water-level. Turn off the water, and let the ground dry till in proper condition to dig easily. Then set your trees by digging a hole sufficiently large to spread out the roots in their natural position. Tread the earth firmly around your tree, leaving the collet at the surface of the ground six inches above the water level of your ditch, so that water may never afterward stand against the body of your tree. Remember that the life of this, and all other trees, is in their little hair-like roots. If any of these are cut off, which is necessarily the case in removing all but the very smallest trees, you should always cut off the top and limbs of the tree to correspond. Trees are never injured by too close pruning when transplanted, but if not top-pruned, a loss of root-feeders will kill the tree or very much enfeeble its growth.

The culture of berries can be conducted on the same general plan, whether they be strawberries, blackberries, or raspberries; the distance apart of the rows, etc., to be determined by the species and size of growth. I give the rule for

STRAWBERRY CULTURE.

Select a piece of ground perfectly level. Plow into ridges, three feet apart, by throwing four furrows together, and leaving a double furrow eighteen inches or more in depth between the ridges. Set your strawberry vines a foot apart on the top of the ridges. Fill the furrows rounding-up full of stable manure (using part straw if manure is scarce), leaving only a hands-breadth uncovered on the top of the ridges where the vines are set. Then turn on the water in the beginning of the dry season, filling up the ditches, completely saturating the manure, leaving only a few inches of the top of each ridge out of water. Such an irrigation will last for twenty days, when it must be repeated. This is all the work you have to do. No hoeing; no plowing out; no cutting off of runners, only irrigate and pick your berries. In our climate, one square rod of ground treated in this way will give a larger return whether the fruit be for market or use, than five square rods of ordinary culture. Vines transplanted from such rows possess a vigor and productiveness that it would take two years to develop in the dwarf, burnt-up things from runners of the ordinary strawberry bed.

NATIVE FRUITS.

Prickly gooseberries of large size and fine flavor abound in the mountain forests, but the prickles or spines have to be burned off before they can be used. Smooth gooseberries of fair size and quality are also found both in the Sierras and Coast Range. Edible currants are found in several mountain localities. Serviceberries and whortleberries are also found in small quantities in the mountains. Strawberries are found on Dinkey Creek and elsewhere at that altitude. Thimble-berries (thornless raspberries) of superior flavor grow in the Sierras, but are productive in only a few damp cañons. Sorbus trees (*Pirus sambucifolia*) grow in the Sierras, but I know nothing of their fruit.

Sorbus domesticus, from Turkey, valuable for its fruit, grows well here on my farm. Mahonias are found on the upper San Joaquin—not productive. Two wild plums grow in the Sierras, *Prunus subcordata*, and *P. Emarginata*, var *mollis*, and a cherry, *P. demissa*, none of them of great value. An evergreen plum, of possible value for hedges or ornament, with edible fruit, *P. ilicifolia*, is said to grow in some of the cañons on the west line of the county. Elderberries of fine quality are found along foot-hill creeks. Wild grape vines are also found, not productive, fruit inferior. Filberts are quite plentiful in some places in the Sierras, nuts of excellent quality. The only valuable accession to cultivated fruits is the KING'S RIVER BLACKBERRY. Myself and others have transplanted to our orchards the best of these. They are of medium size, very productive, superior flavor, and what is most valuable they are twenty to thirty days earlier than varieties usually cultivated. I believe they are the earliest blackberry in the world.

FORAGE PLANTS.

Our native *grasses* are not valuable. The most valuable native forage plant is the "FILREE," of which we have three species, *Erodium cicutorium*, the most plentiful. It covers the earth with its rank growth in springtime: *E. macrophyllum*, the species that makes, by its summer growth, the round "mats," from a few inches to a foot across; *E. moschatum*, the largest, but least plentiful, easily recognizable by its nearly entire leaves and strong musky smell. *Geranium Caroli-*

nianum, resembles the last, but is distinguished by its lack of musk, and turning red on approach of the dry season. ERITRICHIUMS (the most common of which was described as an early winter flower), of which here are at least four species, commonly known to stockmen as "White-blossom," are nearly equal in feed-value to the "Filrees." Closely related to these, of larger growth, with yellow or orange-colored blossoms, are the AMSINCKIAS, of nearly equal value as forage plants. The common species, *A. spectabilis* (known as "Fat-grass"), is, when young and tender, a good pot-herb and salad. On the Posé Chiné, the "WILD CABBAGE," *Caulanthus crassicaulus*, holds a similar place as a forage and food plant. In exotic feed-plants our county ranks high. Here is the "Hirschorn," a millet from the Danube; a branching Sorghum from the shores of the Caspian; Durras from Egypt and China; Penicillaria (a rank millet) from India; Imphees, from Southern Africa; Prickly Comfrey, from Prussia (not a success here); and greater than any of these, *Medicago sativa*, from ancient Greece, brought through Spain and the Spanish possessions in America, hence it has come to us under its Spanish name, ALFALFA. The loss of stock from bloat, caused by eating it when in most active growth, detracts from its value. Bloat can be prevented by giving stock access to hay or straw; or better, by having imphee, sorghum, or millet, growing with the alfalfa so as to constitute from five to ten per cent of their feed. The best grass for this purpose is probably the EVERGREEN MILLET, which has perennial roots, yields as much feed as alfalfa, and surpasses it in ability to thrive under conditions of drought, heat, frost, or flood that would kill even alfalfa.

MEDICINAL HERBS.

The Yerba Santa (*Eriodiction glutinosum*) a pulmonary remedy, a shrub, abounds in the hills. Yerba Mansa (*Anemopsis Californica*), a sort of "cure-all" among the Spaniards. A decoction of the root is an excellent application to saddle-galls and other sores. It is found in abundance in Riverdale. Chia (*Salvia Columbariæ*) is found on sandy alkali land. The seed of this infused in water was the Spanish remedy for dysentery. *Salvia carduacea*, the more common species, with thistle-like spines, was also similarly used, but considered inferior. Wild carrot (*Daucus pusillus*) the chewed or pounded leaves were by the Spaniards an outward application for rattlesnake bites; recognizable from leaf and seed resembling the cultivated carrot; root small. SPIKENARD (*Aralia Californica*), found in damp cañons; has large mucilaginous roots; said to have demulcent qualities. FALSE HELLEBORE (*Veratrum Californicum*) found in meadows of the Sierras 4,000 to 8,000 feet; root poisonous; used in medicine; also, when dried and ground to powder, valuable for gardner's use as an insecticide.

Thus closes the valuable article kindly furnished us by Prof. Sanders.

Wild Berries, Fruits and Roots.

Another writer furnishes us with some additional matter on the general subject of Botany and especially on ferns, a portion of which is here given:—

There are wild grapes, blackberries, gooseberries, huckleberries, raspberries, salmonberries, and strawberries. The raspberry grew wild, but never in the great quantities in which the blackberry was found. The latter, for a great many years, was quite a source of revenue to the Indian squaws, who gathered and sold them to the whites. There are a few left yet, but the great bulk of the vines have had to give place to products of greater value. Our wild blackberry is not so large as the tame, nor as the wild berry of the Eastern States, but it is of a very much better flavor than either. The wild grape grows all through the timber along the river. The berry is small and very full of seed, but when perfectly ripe has a very fine flavor. It is better for jelly than any other.

CHLOROGALUM POMERIDIANUM.—The amole, or soap plant has an onion-like, bulbous root, which, when rubbed in water, makes a lather like soap, and is good for removing dirt.

It was extensively used for washing, by the Indians and Spanish Californians, previous to the American conquest. The amole has a stock four or five feet high, from which branches about eighteen inches long spring out. The branches are covered with buds which open in the night, beginning, at the root of the boughs, about four inches of a branch opening at a time. The next night the buds of another four inches open, and so on. The dry bulb abounds in tough fibers, which are separated from the other material, and used as a substitute for hair in mattresses.

A truffle, or a root resembling it, is found in the valleys. The grizzly bear considers it a delicacy, and frequently digs it up.

LILIORHIZA LANCEOLATA.—It is among the earliest spring flowers. Has a rather unpleasant odor.

It is among the earliest of our spring blooming bulbs, with a habit and appearance slightly similar to the spring snowdrop, which is so much prized in the Eastern States. Its flower stem, which has but few leaves, is from six to fifteen inches high; the scattered leaves run into bracts near the summit, from whose axils spring the flowers, which at first appear to project outward, but gradually droop with age.

The blooming bulbs often grow at a depth of a foot or more in a stiff adobe, and as the bulbs are composed of several loosely coherent scales, it is often very difficult to obtain them entire. They are a clear waxy white.

CREEPING PLANTS AND VINES.

Along the lower land of the river and sloughs, and among the timber, the wild pea grows to a very great height.

There is a wild hemp growing upon the lowlands, from which the Indians used to make fish-nets, and rope.

Agreeable Climate.

THERE is one subject upon which the true Californian never wearies of dilating—"the climate." Be it in the ice-bound regions of the Sierras at midwinter, or in the heat and midsummer of the great valleys; in the fogs of the coast, or in the sand-storms of the plains, he will assert "it is the finest climate in the world."

Climate, more than any other one property, determines the comparative and intrinsic worth of a country for habitation. Every other condition may be, to a less or greater degree, altered by human agency; climate remains a steadfast servant to its mistress, Nature. The soil may be unfruitful; timber wanting; the water unfit for use; man remedies such defects, and nations are planted in the midst of these adverse surroundings. Climate, unaltered, outlasts the labor of races.

In the location, then, of a permanent settlement and the choice of a home, climatic conditions form the first and chief factor. Men pierce the frozen barriers of the North or brave the wasting torrid heats in pursuit of wealth, only that they may dwell in comfort where the seasons come and go mildly. Human adventurers are not bound by frost and heat; and yet homes are not made of choice too near the extremes of either.

Enough seasonable variation exists to make the race vigorous, to produce grains and fruits of the finest quality, and the best varieties of domestic stock. At the same time out-door labor suffers little interruption by reason of weather stress.

The most dense population, the highest intelligence, and the most general prevalence of the useful arts, are found along those isotherms opposing the fewest rigors of climate to be overcome. Here, too, national and individual wealth are accumulated in the largest abundance. For physical discomforts require less expenditure in food, clothing, and shelter, and thus subtract less from the sum total of labor, leaving a maximum to be added to the individual and general capital. The north temperate region, accordingly, affords resources for the highest individual and national welfare.

THIS CLIMATE COMPARED WITH OTHERS.

To realize the advantages of our climate, we have only to compare it with the climate of other States and counties. At Cincinnati, in January, the minimum temperature is ten degrees, that is, ten degrees below zero, or forty-two degrees below the freezing point, or, as we say, forty-two degrees of frost, whereas, in most of the valleys in California, and particularly here in this valley, we do not have more than two degrees of frost, and snow never, except in two instances within the last ten years, and then only enough to cover the ground, and remaining only a few hours.

The mean temperature in Cincinnati, in January, is twenty-one degrees, Fahrenheit, indicating that the average day in that month has eleven degrees of frost, while the average January day here is at least twenty-two degrees warmer than in Cincinnati. At Richmond, Virginia, in the same latitude with us, the minimum temperature in January is two degrees, that is, two degrees above zero, being something like forty degrees below the greatest cold observed here in the same latitude. There are other important points in our favor when compared with the other side of the continent—the difference in the temperature of the summer nights, which are oppressively hot in the Atlantic States, and so deliciously cool and pleasant here as to secure refreshing slumber.

REASON OF AGREEABLE CLIMATE.

One reason of this is the difference in the atmospheric moisture, which has a great influence upon comfort in hot weather, and which effects all climates. The air is so dry here that the perspiration is carried away rapidly, leaving the body cool and refreshed, but with our Eastern friends, the abundance of moisture prevents or checks evaporation, and there is more discomfort with a temperature of ninety-eight degrees there than with 110 degrees here.

When people there are suffering with prostration from sunstroke, we here find comfort and safety in the gentle breeze which fans our cheeks, and wipes the perspiration from our bodies, leaving us cool and refreshed, and beyond the reach of the sun's most oppressive heat.

Our climate rivals that of Lombardy with its rich fields of the olive, the fig, and the grape; that of Nice, with its mild and salubrious air, sought as it is by the thousands of health-seekers from all parts of the world; that of Dijon, the champagne regions of France and Italy, and Naples, whose sunny skies and balmy breezes have been the subject from remote ages of many a poet's song.

CLIMATE OF SOUTHERN CALIFORNIA.

To the inhabitant of the Eastern States, says Dr. J. P. Widney, southern California is a new region, where, he has heard, his harsh winters are unknown, and where the orange flourishes as in its native home. When he reads of it, it is the account of men who have gone with eyes free from any pre-existing prejudice, and have told what they saw. Of the people of northern California, however, comparatively few have ever visited the southern portion of the State, while they have learned just enough of the climatic peculiarities of the coast to know the general law that rain-fall diminishes as they go south. They observe that the average annual rain-fall of Sacramento is eighteen inches, while that of Stockton upon the south is sixteen and eight-tenths inches.

In the Tulare country, which is still farther to the south it has decreased to only six and a half inches. They reason that as what is known as distinctively southern California lies yet beyond those lands of steadily failing moisture, it must be still more arid. They have not stopped to inquire whether there may not be other influences at work changing or suspending the action of the law.

-For a proper understanding of the climate of California it is essential that the general climatic laws of the whole State should be studied. The most strongly marked feature in the physical geography of California, and the one which at once catches the eye of the observant traveler, is the fact that its mountains, for hundreds of miles, run parallel with the coast, and that there are two of these great chains, one rising abruptly almost from the sea line, like a long wall, with only here and there a shallow coast valley, as at Santa Cruz, lying outside the range and facing directly upon the ocean. This is known as the Coast Range.

THE SIERRA NEVADA.

The great uplifted crest of the Sierra Nevada, which, for hundreds of miles, in unbroken chain, forms the horizon line upon the east, crossed only, at long distances, by some rugged pass, leading to the interior basin of the continent.

This range, with its great altitude, its heavy snows, and its immense condensing power, is the source of all the important rivers of California. From it come the Sacramento and San Joaquin, with their tributaries, and in southern California, the Los Angeles, the San Gabriel, and the Santa Ana.

These two ranges of mountains divide the lands of the State into two classes of widely different climatic features—the humid coast valleys, lying outside of the Coast Range, facing upon the ocean, and marked by a comparatively great precipitation of moisture and slight evaporation; and the more arid interior valleys, lying between the two ranges, and characterized by just the reverse—a light rain-fall and an excessive evaporation.

The great interior basin of California, the Sacramento, and San Joaquin, together with several smaller valleys, as the Santa Clara and Napa, formed by a local splitting of the coast mountains into two ranges, drains outward to the ocean through the gap which forms the inlet to San Francisco Bay, while through the same gap flows back the cool air-current which gives the daily sea-breeze to these valleys.

BROKEN MOUNTAIN RANGES.

Out of the broken confusion of the Tehachapi and Tejon Mountains, where the Sierra and the Coast Ranges seem to become inextricably entangled, the Sierra at length emerges, and skirting the Mojave Desert upon the west, turns eastward under the local name of the Sierra Madre as the northern wall of the Los Angeles and San Bernardino country; then turning again southward along the western rim of the Colorado Desert, goes on to form the backbone of the peninsula of Lower California.

A stray fragment of the Coast Range rises again for a while, under the name of the Santa Monica Mountains; joins the dividing ridge between the westerly plains of the Los Angeles country and the San Fernando Valley; breaks down entirely where the San Fernando Valley opens into the Los Angeles; gives outlet to the Los Angeles River; then rises as a low, irregular range of hills between Los Angeles and the San Gabriel country—hills having an elevation of only 200 or 300 feet; breaks down again completely after a few miles, where the broad valley of the San Gabriel comes out from the Sierra, irrigating with its waters the fertile, low-lying lands of El Monte and Los Nietos.

The hills rise again as a broken range, gradually attaining to a height in scattered peaks of 1,000 or 2,000 feet, but torn asunder where the Santa Ana, coming from its source in the San Bernardino portion of the Sierra, and watering upon its way the San Bernardino and Riverside countries,* bursts through to the lands of Santa Ana and Anaheim and the coast plain, and on to the sea. Beyond, this broken, wandering remnant of the Coast Range becomes again, but this time hopelessly, entangled with and lost in the Sierra. This breaking down of the Coast Range throws the whole valley system of southern California, known collectively as the Los Angeles country, open to the sea, making it practically a vast system of coast valleys, with the Sierra as a background; and it is to be classed with the Humboldt and Santa Cruz Counties in climate, but from the sheltering mountains and the more southern latitude milder in temperature, and in extent upon an infinitely larger scale. About 3,000 square miles of level valley land open out to the sea at this point.

COLD WINDS CUT OFF.

The sharp trend eastward of the coast line south of Point Concepcion also brings the sea nearer to the Sierra, making its influence more felt, while the deflection of the Sierra from a north and south direction to almost due east turns it into a huge barrier, raised directly across the path of the cold north wind, which sweeps the upper portion of the State. Under the shelter of its peaks, ranging in elevation from 6,000 to 11,000 feet, these southern valleys nestle, looking from the snow-clad crests above them out toward the warm southern sea.

The exemption of southern California from the working of the general law of a continuously diminishing rain-fall, and an even more arid climate as you go south, lies in the fact that it is essentially a coast country, and not a continuation of the San Joaquin and Tulare Valleys. The mountains which shut those valleys off from the sea are, as already shown, broken down and lost in southern California. The tendency to a reversion to the interior type is seen, however, in the San Fernando Valley, which is partly shut off from the ocean by the Santa Monica Mountains belonging to the coast system, which is not so shut off. Even in the San Fernando Valley the elevation of the Coast Range is so slight and the breaks so open, that the only result is to shelter it partially from the fogs and give a somewhat drier air and higher summer temperature. The shelter is only enough to make this valley the most noted wheat region of southern California; not enough to rank it with the parched and unreliable San Joaquin and Tulare Plains.

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*The special features of these local climates is given elsewhere.

The Mojave Desert may be looked upon, not as the geological, but as the climatic, southern continuation of the great interior valley of California.

The following table, giving the temperature and humidity, month by month, of Sacramento and Los Angeles, are compiled from the last published annual report of the United States Signal Service:—

MEAN TEMPERATURE FOR EACH MONTH, FROM JULY, 1877, TO JUNE, 1878.

Month.	Sacramento. Degrees.	Los Angeles. Degrees.	Sacramento. Humidity.	Los Angeles. Humidity.
July	75.7	71.1	43.0	61.8
August	73.0	70.1	46.0	64.5
September	72.8	69.8	43.0	62.1
October	62.7	63.4	49.0	67.4
November	53.9	62.1	72.0	46.5
December	47.8	55.3	74.0	56.4
January	49.0	54.1	79.0	61.0
February	51.0	54.6	80.0	69.3
March	56.5	55.8	74.0	72.9
April	59.8	58.0	65.0	69.8
May	66.4	62.0	57.0	70.4
June	73.0	64.7	53.0	72.0
Annual mean			61.3	64.5

Number of days at Sacramento with temperature above ninety degrees, fifty-five; highest temperature recorded, 103 degrees.

Number of days at Los Angeles with temperature above ninety degrees, four; highest temperature recorded, ninety-three degrees.

AVERAGE ANNUAL RAIN-FALL.

Sacramento 18 inches; Stockton, 16.8 inches; south end of San Joaquin Valley, 6.5 inches (these three measurements are taken from the official report of the State Engineer, 1880); Los Angeles, 17.97 inches (average for the last eight years, as shown by rain-guage kept by Mr. Ducommun, at Los Angeles).

The San Diego average from 1871 to 1881 was 9.59 inches and the average number of rainy days per year was forty. During five years the mercury rose above 80° only fifty-eight days, and only once reached 100°. The San Diego climate is given more fully elsewhere.

A comparison of the foregoing table shows Los Angeles to possess, as contrasted with Sacramento, an atmosphere warmer and drier in winter, and cooler and moister in summer, while the table of precipitation shows the average annual rain-fall of eighteen inches at Sacramento diminishing as you go south, in accordance with the law already mentioned, to 16.8 at Stockton, and in the Tulare and Kern Valleys, still farther south, to only 6.5 inches. Yet at Los Angeles, in southern California, it has suddenly risen again to 17.97 inches almost the same as at Sacramento. The cause of this has already been explained in the first part of this article.

FOGS AND HUMIDITY.

The warmer winter in southern California, as compared with the more northern portion of the State, and the greater exemption from cold, drying winds, make this amount practically equivalent to a larger rain-fall in Upper California, as vegetation is not so much retarded by the cold of December and January, but the whole of the winter becomes a growing season. The growing season is also prolonged by the fogs and humidity of a late cool spring. The heat of summer sets in late. The season is several weeks behind that of Sacramento. Almost nightly, until July, a heavy fog rolls in, wrapping the more open portions of the country in a cloud of mist—at times almost a drizzling rain—which does not lift until several hours after sunrise.

DAILY SEA-BEEZE INLAND.

The daily sea-breeze, only slightly obstructed by the low fragments of the Coast Range, finds its way to all portions of the system of valleys, saving them from the excessive temperature and the rapid evaporation of the Sacramento and San Joaquin country. Winter flannels are only changed to a lighter summer flannel.

Another factor enters into the problem of the climate of southern California. The influence of the Sonora summer's rain-current is sensibly felt everywhere south of the Tehachapi Mountains.

Rains are common in all the mountains of southern California during the summer months, with a moist, cloudy air in the valleys. Three seasons in eleven years I have seen heavy rains of several hours' duration, extending all over the valleys, in July and August. During these months of every year thunder-storms with often vivid lightning can be seen, sometimes daily, following along the line of the mountain chains. These summer rains help in a measure to keep up the volume of water in the rivers for irrigation, while all over the valleys the moist air which the rain-current brings is instrumental in materially checking evaporation. The summer has little of the harsh dryness of the climate in the northern part of the State. The humidity of the atmosphere is shown by the great fleecy cumuli, which float slowly across the sky like the summer clouds of the Eastern States, and by a peculiar softness of air resembling much the balmy mildness of the Mediterranean.

CLIMATE FOR CORN, VINE, AND ORANGE.

This soft, moist air admits of the raising of one product not elsewhere extensively cultivated in California. Here, as in the Mississippi States, corn is the staple crop, its broad, green leaves luxuriating in the warm air in which it delights. So the rank growth, and the rich, juicy green of the orange and the fig leaves, show the mildness and humidity of a climate which to them is home.

The drainage from the water-shed of the Sierra, which stands as a huge background to the whole system of valleys, affords an unusually abundant supply of water for the purposes of agriculture. Over much of the land a double crop is raised—small grain without irrigation in winter, corn by irrigation in summer. The cienegas are also a peculiar feature of these valleys. The under-ground flow from the Sierra here and there comes to the surface, making stretches for miles of moist land, green with grass in the driest part of the summer.

NATURAL WATER RESERVOIRS.

The broken, hilly Coast Range, lying at the verge of an upland plain between the Sierra and the sea, affords innumerable natural sites for extensive reservoirs for the storage of the winter floods, thus saving the winter water for summer irrigation. Many small reservoirs have been built upon this upland plain and in the hills. These southern valleys are by far the best watered portion of California, while the extensive use of water for irrigation is reacting upon the climate, making it still more humid.

The peculiarity of the physical character of the country which has been described, the practical obliteration of the Coast Range, and the facing of the high Sierra directly out toward the ocean, gives rise to one type of climate not elsewhere found in the State. It is not the climate of the Coast Range; neither is it the climate of the Sierra. It is a climate produced by giving the daily sea-breeze of the Coast Range to the Sierra. It is a climate which can hardly be described. The peculiar charm of it must be felt to be understood.

WARM FOOT-HILL CLIMATE.

Along the base of the Sierra back of Pasadena, on eastward back of San Gabriel, past Cucamonga, with its noted vineyards, above Pomona and on beyond San Bernardino, growing warmer as it recedes eastward from the sea, is a belt of foot-hills above the fog line, facing out toward the noonday sun, looking down across the plains, and the hills of the Coast Range, upon the warm southern sea, and yet fanned daily by an ocean-breeze that has no harshness. The Southern Pacific Railroad, upon its way to Arizona, skirts the foot of this belt for 100 miles.

This, however, is only one of a number of climates developed. There are local peculiarities which one would not suspect until after actual residence. Along certain lines lie what might be termed wind-belts. These are caused by the breaks in the Coast Range of hills. The night fogs also are more apt to follow certain well-defined courses; and in the winter frost has its sections of preference, while other portions of the country escape entirely.

ANY CLIMATE OBTAINED EASILY.

There is a varied choice of climates within a comparatively limited area. Within a few hours by rail one may have the fresh air of the sea-side, with surf-bathing and a temperature always cool, even in the warmest days of summer; or, passing inland, the wheat-fields of San Fernando Valley, resembling somewhat the climate of the great interior valley of the San Joaquin; then the warmer raisin lands of Pomona and Riverside; the long, fogless belt of the Sierra foot-hills; and beyond, the alfalfa lands of San Bernardino.

And still beyond, 100 miles inland, over the open valley from Los Angeles, is the San Gorgonio Pass, land-marked from the Colorado to the sea by the twin peaks, San Jacinto and San Bernardino, with snowy crests rising 10,000 and 11,500 feet above the plain. Here the Sierra breaks down, forming the only natural pass in all its long chain, the grassy plain, without even a dividing crest, swelling and rolling through at an elevation of only 2,900 feet, a natural gateway for the southern trans-continental roads upon their way to the East. Beyond, is the great mystery of the rainless desert.

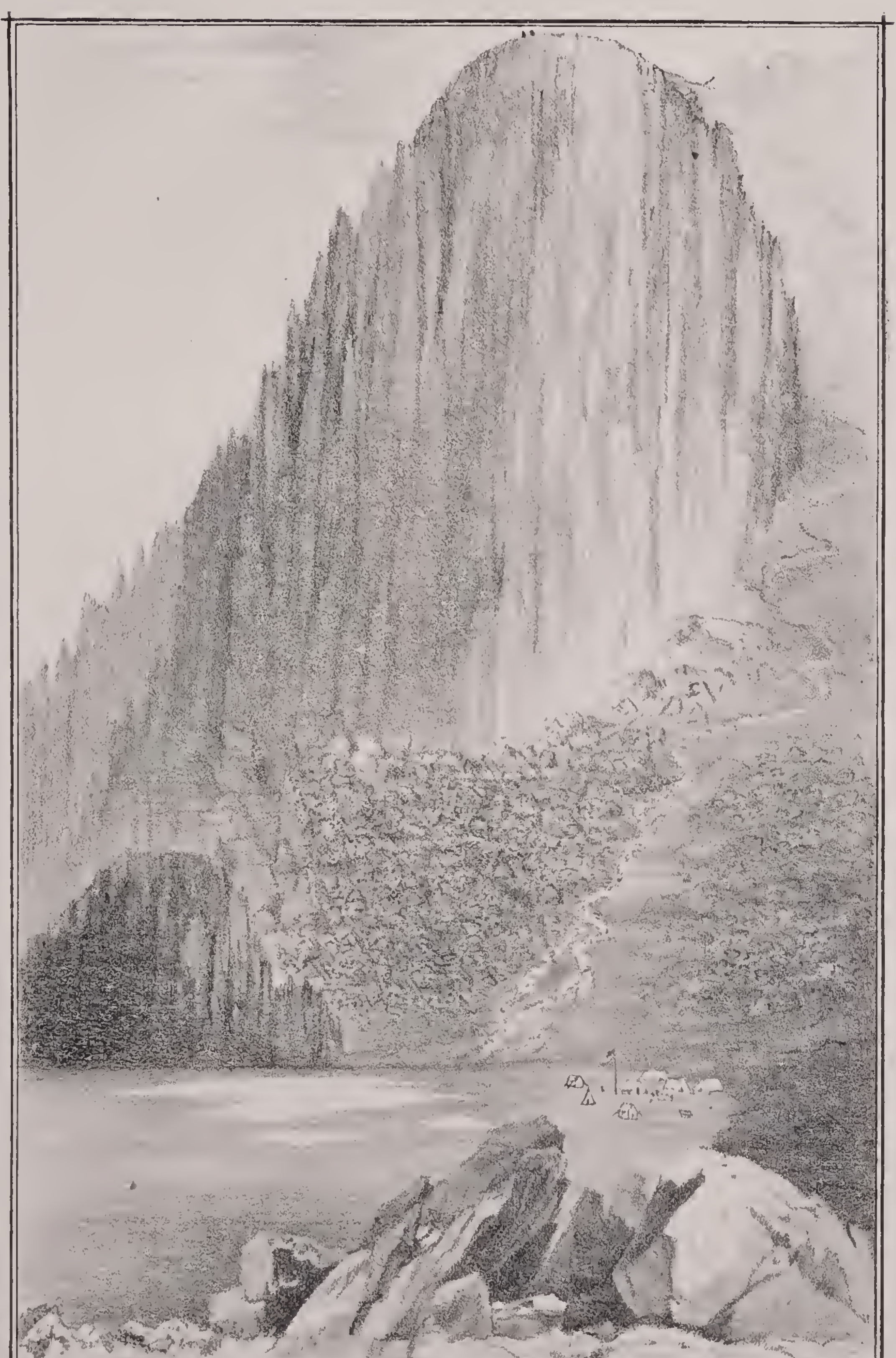
SAN JOAQUIN VALLEY CLIMATE.

A traveler, on learning that the San Joaquin Valley is not in the snow zone, naturally looks about for the cause of such remarkable mildness of climate at that latitude. He sees on the west the Coast Range, a spur of a mountain system with an altitude from 3,000 to 5,000 feet; on the east the Nevadas from 6,000 to 9,000 feet high. There is thus formed a natural barrier, shutting out much of the cold northers, and inclosing a body of measurably isolated air tending to hold an even temperature. But the great chief cause of our year-long summer, is that portion of the Japan current turned towards the coast, and skirting it from Victoria to Central America.

With a temperature thus equalized, and an atmosphere thus daily refreshed, the valley of the San Joaquin possesses a climate eminently conducive to both the comfort and the health of man. The climate of California has been not inappropriately compared to that of Italy in the equability and agreeableness of its temperature. No equally extensive section of the State possesses in so eminent a degree those desirable climatic characteristics which justify this favorable comparison, as does the valley of the San Joaquin.

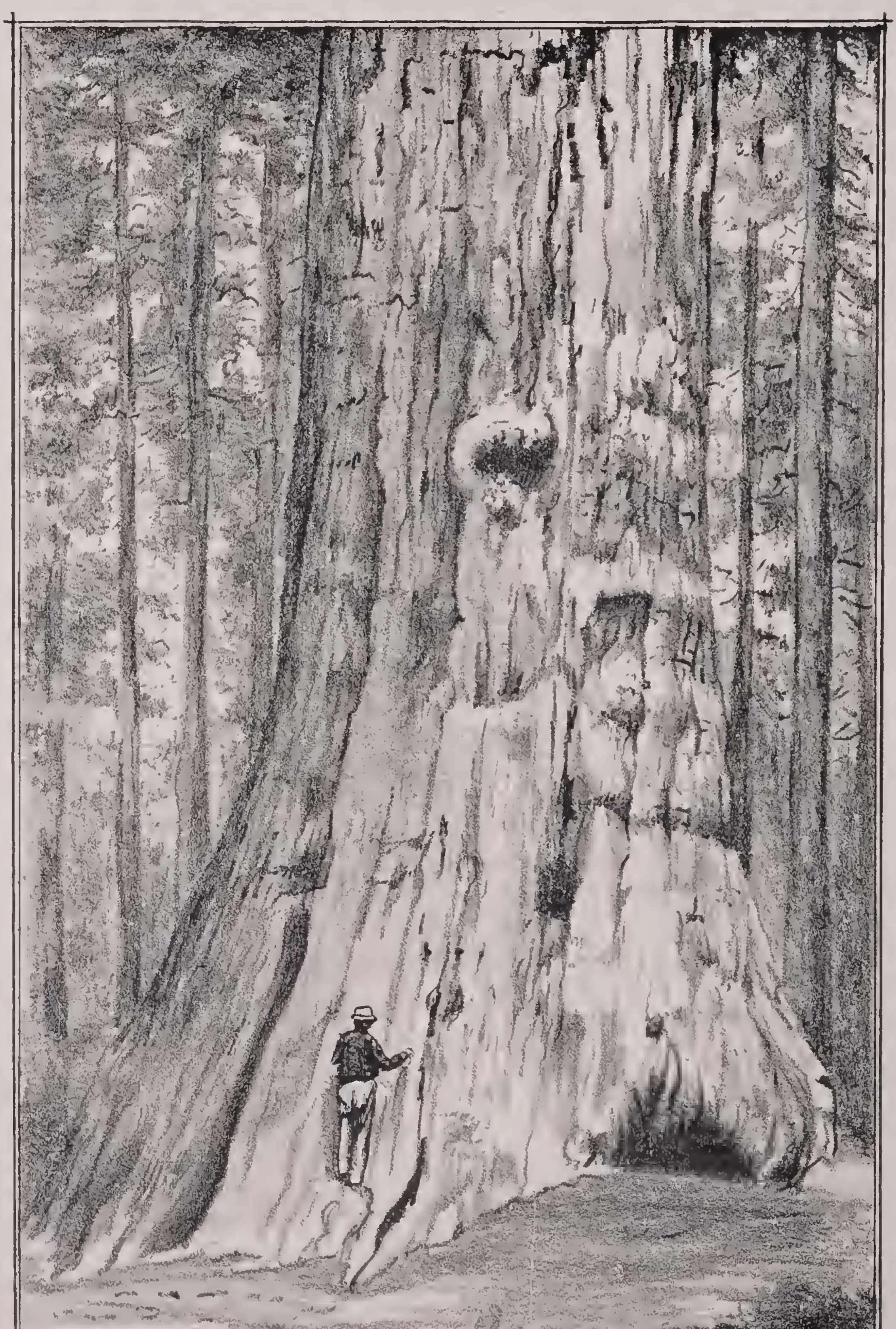
INFLUENCE OF TRADE-WINDS.

As we leave the ocean and go inland, the influence of the trade-winds decreases, and the heat of summer and the cold of winter increases. The sea-breezes make the winters warmer, and the summers cooler. The ocean-breezes seem to lose their influence over the winter at twenty miles from the ocean, but their influence over the summer weather extends much further inland.



MOUNT WHITNEY. FROM SKETCH BY WALES.

ELLIOT [illegible] 421 MONT. S



GEN. WASHINGTON
41½ FEET DIAMETER.
276 FEET TO BROKEN PART.

PHOTO. BY DUSY

ELLIOTT LITH. 421 MONT. ST.

EFFECT OF THE HOT VALLEYS.

Another effect of the sandy plains is to create a daily sea-breeze from the southwest return trade-winds that prevail on the coast as surface winds during the summer months. Each day, after the sun rises over these great plains, they become heated and increase the temperature of the air over their surface; this air rises, and as the whole current of cool air is from the ocean on the west, it rushes in to fill the vacancy.

A gentle southwest wind may be blowing on the coast at night or in the morning: by eleven or twelve o'clock the full force of the sun's rays is felt—the gentle breeze has increased to a brisk wind, and continues until evening. After the setting sun has withdrawn his rays and the sandy plains have radiated its heat into space, the gentle southwest wind resumes its sway until the next day, when, from the same cause, the high wind is again repeated.

CAUSE OF HOT NORTH WINDS.

The cause of those hot desiccating north winds, says Redding, which occasionally sweep over the valley in the summer-time, have not been generally understood. They are caused by the fact that the Sierra Nevada and Cascade Mountains reach the coast of Alaska, and bend like a great arm around its western and southern shore, thus shutting off or deflecting the polar winds that otherwise would flow down over Oregon and California.

As it comes south it is heated by coming into warmer latitudes, its capacity to take up moisture is increased, but it finds none in its course. The Cascades, which are a continuation of the Sierra Nevada, direct it into the Sacramento Valley, where it meets still greater heat, which the more increases its capacity for moisture. It therefore possesses all the desiccating qualities for which it has become famous.

This dry air as it passes over the dry hot surface of the plains is unable to obtain moisture, as is the case when north winds blow in the rainy season. Winter north winds are, by being charged with moisture, cool enough to suit the most exacting demand.

The theory that these winds come from Arizona is not tenable, as the mountain formation precludes such a movement without extraordinary forces in the case, a condition for which there is no known reason.

EFFECT OF NORTH WINDS.

A highly important feature in the climatology of this region is the north wind. During the spring and fall months these winds blow at intervals more or less frequent. As few as twelve days of north wind have occurred during a spring season and as many as forty. In a large number of instances a wind from the north does not cease under three days, though they sometimes last during a single day only, and much oftener extend during a week, rarely several weeks.

The north winds are remarkable for an extremely low humidity, or moisture, reaching often as low as eighteen. During their prevalence there is a general feeling of depression in the animal spirits, and plants suffer largely. Growth of vegetation is retarded, and fruits and grain suffer in form and substance, wheat just coming into the milk state being especially injured. The exceeding dryness of these winds is readily accounted for by well-known atmospheric conditions. That portion of the upper current which descends to the earth at very high latitudes has as a consequence precipitated moisture to the possible limit.

When those currents descend into the valley the temperature is measurably raised and capacity for moisture largely increased. They thus come to us as unusually dry winds, so dry indeed in some instances that the land and water surfaces, animals and plants, are called upon to lose the surface moisture to an extreme degree in quantity and rapidity. To such facts are those depressed feelings experienced by most living things within their influence due. The winds are freighted to some extent with electrical properties, but not to that degree often supposed. The nervous uneasiness often felt during northers does not come from the presence of electricity, but is an affection in the animal system caused by overaction in the tissues and excessive evaporation from the body.

ELECTRICAL ACTION OF THE NORTH WINDS.

At a meeting of the Academy of Sciences, there was a discussion of the effects of the north wind. Dr. Harkness stated that it was his opinion that the damage to plants done by our northerly winds, was not due to actual desiccation in drying up the sap, but to some peculiar electrical condition, which arrested the cell growth. Before such northers, plants shrivel, curl and show signs of great distress, but with the return of soft, moist magnetic breezes from the equator, they soon resume their fresh and vigorous appearance. These changes are far too sudden to be due to desiccation or absorption, but are attributed to a cessation of cell rotation, induced by electrical disturbances, which we know take place during the continuance of our northerly winds. They caused an uneasiness, which results in dog fights, runaway horses, cross dispositions, pallid faces, etc. Dry atmosphere is a perfect non-conductor, but all moist plants and animals, as well as men, then become so many miniature lightning rods. The nerves are at such times continually irritated by a constant succession of tiny blows, like telegraphic ticks, against the nerve centers. They contract and produce a congestion of the organs; the blood becomes turbid, while kidneys, liver and lungs all suffer. We were always surrounded by electricity, but did not perceive it until its equilibrium was destroyed, when it became manifest. In some parts of India, silk underclothing is necessary to comfort, at certain altitudes, during dry north winds, and in other parts no relief is found in this clothing.

Mr. C. D. Gibbes, C. E., remarked that when surveying during our north winds, in the San Joaquin Valley, the electrical disturbance was so great as to cause the needle of his compass to fly up against the glass and become useless during the first part of the day, when in the field; but that if he took the same compass into a warm, moist room, it again acted normally. Engineers in Santa Clara and Calaveras Counties report the same action and dip of the magnetic needle during the prevalence of our dry northers.

Dr. Henry Gibbons, Sr., thought this electric action more subtle than from any apparent mechanical evolution of electricity from friction of the passing wind over the surface of the earth. He said all persons felt cold, for it drove the circulation from the surface to the interior of the body has been marked. The death-rate has been claimed to increase at such times. He had a patient whose eyes always blinked and snapped during a north wind, even in a warm, moist room, entirely protected from direct contact with the wind.

RAINY SEASON OF CALIFORNIA.

The season of rain in this section may be said to commence in October and end in May, though it sometimes rains in June. It is rare that it rains longer than two or three days at a time, and the intervals between rains vary from a few days to a month or six weeks. Old Californians consider the winter the most pleasant part of the year. As soon as the rain commences in October, the grass grows, and by the middle of November the hills and pastures are green. So soon as the ground is in condition to plow, after the first rains, the farmers sow their grain. December is usually a stormy month, with now and then a fall of snow in the mountains, but it is rare that the snow falls in the valleys, and never lies on the ground.

The thermometer seldom goes as low as thirty-seven degrees above zero. Occasionally there is a thin coat of ice over the pools of standing water.

December is usually the month of heaviest rain-fall. In January we begin to recognize an indescribable feeling of spring in the air; the almond trees blossom, and the robins come. During this month grass and early-sown grain grow rapidly. If the early season has not been favorable for seeding, grain may be sown in January, February, or March, and it will produce well. In this county it is often sown as late as the middle of April, producing a fair crop. As a rule, the bulk of the planting is done either in the fall or in January, February, and the first half of March.

February is a growing month, and is one of the most pleasant in the year. It is like the month of May in the Eastern States. Peach and cherry trees bloom in this month. March is a stormy month; we are liable to have either heavy southeast storms or a dry north wind.

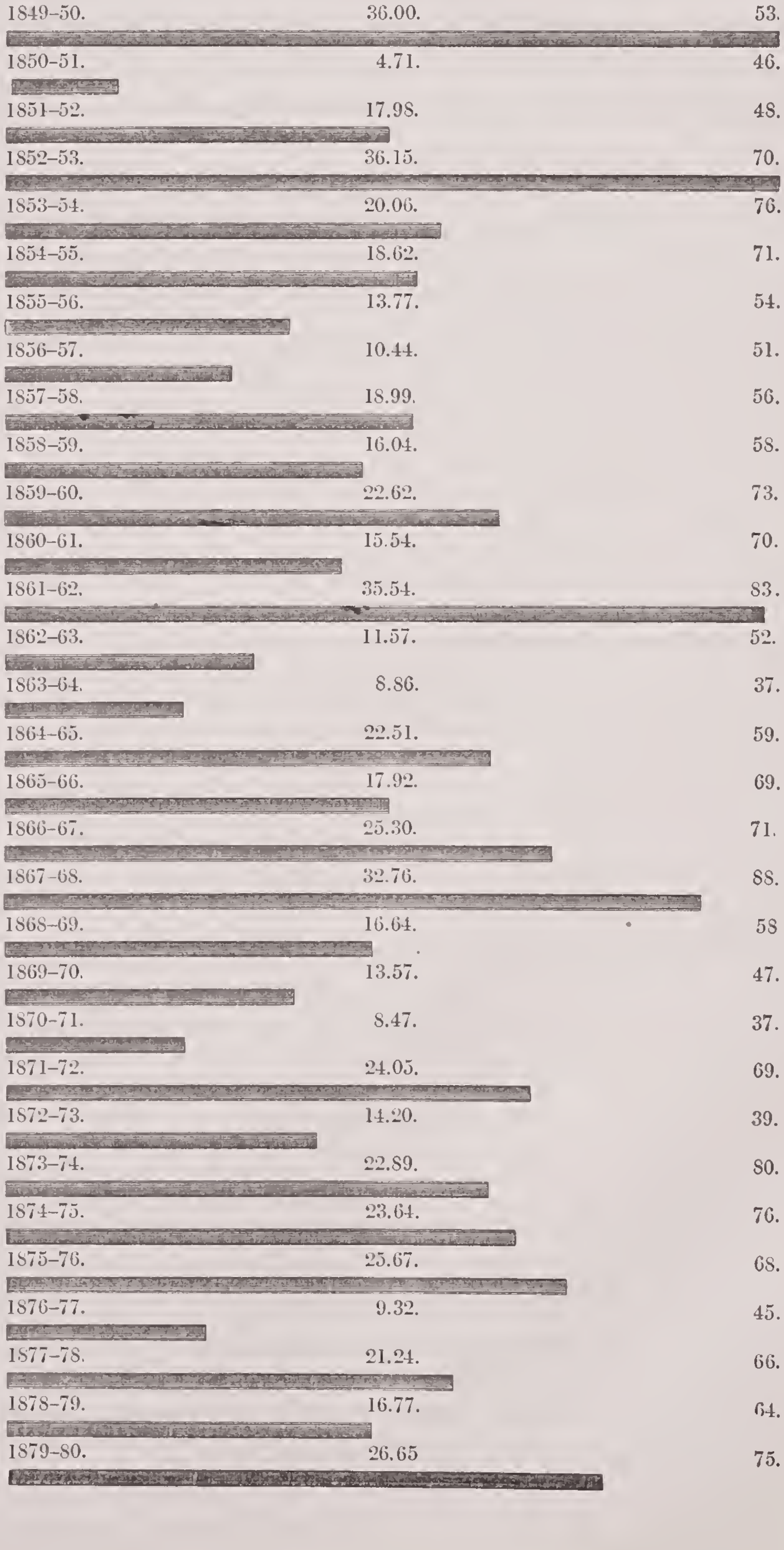
The amount of rain-fall differs in almost every locality The rain-fall of different places will be found on another page. No rain-fall tables have been kept for a succession of years in any valley, except at Sacramento, where records have been kept for thirty years, as well as the number of rainy days.

The following diagram shows at a glance the amount of rain-fall for any one year as compared with another:—

DIAGRAM AND RAINFALL TABLE.

Arranged for ELLIOTT & MOORE'S COUNTY HISTORY, showing the amount of rain in inches for each rainy season during thirty years, from records kept by the late Dr. T. M. Logan, and Dr. F. M. Hatch, of Sacramento. These tables are generally taken as representative of the whole State.

[SCALE ONE-NINTH OF AN INCH TO AN INCH OF RAIN.]



Year.	Rain-fall—Inches.	Rainy Days.
1849–50.	36.00.	53.
1850–51.	4.71.	46.
1851–52.	17.98.	48.
1852–53.	36.15.	70.
1853–54.	20.06.	76.
1854–55.	18.62.	71.
1855–56.	13.77.	54.
1856–57.	10.44.	51.
1857–58.	18.99.	56.
1858–59.	16.04.	58.
1859–60.	22.62.	73.
1860–61.	15.54.	70.
1861–62.	35.54.	83.
1862–63.	11.57.	52.
1863–64.	8.86.	37.
1864–65.	22.51.	59.
1865–66.	17.92.	69.
1866–67.	25.30.	71.
1867–68.	32.76.	88.
1868–69.	16.64.	58
1869–70.	13.57.	47.
1870–71.	8.47.	37.
1871–72.	24.05.	69.
1872–73.	14.20.	39.
1873–74.	22.89.	80.
1874–75.	23.64.	76.
1875–76.	25.67.	68.
1876–77.	9.32.	45.
1877–78.	21.24.	66.
1878–79.	16.77.	64.
1879–80.	26.65	75.

A MONTH OF SUNSHINE AND SHOWERS.

April, as in the East, is often all smiles and tears, sunshine alternating with showers. Nature pushes her work in April, and vegetation grows astonishingly. The turning-point of the crop comes in the long, warm days of this month; the rainy season is about over, and from that time till it matures the crop is sustained by the moisture already in the soil. In June, grain matures, and by the middle of July it is ready for harvest.

In April a last shower occurs, and then begins the dry season. From that time until November there is no rain; everything is dry and parched; the grass cures and becomes hay as it stands in the fields, and the dumb brutes fatten and grow sleek on it. Persons camping out require no tents.

WHERE THE RAIN-FALL IS GREATEST.

The comparatively great rain-fall of the country north of the Sacramento, as contrasted with the plains upon the south in the San Joaquin and Tulare country, is to be attributed to the same cause; for while the main volume of the rain current entering through the break and the adjacent depressions of the range west of San Francisco Bay, and then following the water-level back to Sacramento, keeps on with its original northeasterly sweep to the section north and east of the river, any portion of the current seeking to turn aside to the level plains upon the south must double back upon itself and struggle against the drier portion of the same southwest wind, which has, in the general sweep, after losing a large portion of its moisture in crossing, forced its way over the higher line of the same Coast Range south of San Francisco and passed on directly inland. Hence the rain-fall of the country north and east of Sacramento increases, while upon the south, although the land drains by the same outlet to the sea, it steadily diminishes.

The working of the same law may be seen, although upon a more limited scale, in the smaller valleys which surround and drain into San Francisco Bay. Napa Valley, lying upon the north, with its mouth opening at an acute angle toward the incoming rain-current of the Golden Gate, hardly knows what it is to have a failure of crops through lack of moisture; while Santa Clara Valley upon the south, and opening out toward the north, rather in the direction toward which the rain-current is going than toward that from which it is coming, has a much lighter rain-fall, and suffers from drought more frequently. The lower and moister stratum of the rain-current, entering at the Golden Gate, in order to reach the Santa Clara Valley would have to double back upon itself, and battle with the direct current from the south, which, after parting with enough of its moisture to water the Santa Cruz country, has already forced itself, a partly desiccated wind, over the mountains of the Coast Range through what is known as the Santa Cruz Gap.

INFLUENCE OF COAST RANGE.

The influence of the Coast Range upon the climate of the interior valleys is felt in still another way: by obstructing the inward flow of the daily sea-breeze, with its moister air, its lower temperature and the frequent night fogs, evaporation in these valleys goes on with scarcely a check the moment the rains are over, and so the water that does fall is more quickly dried up.

The direction of the two ranges, the Coast and the Sierra, also has its influence, and that far from a favorable one, upon the climate of these valleys; for, by their course from north to south, they leave the country open to the full sweep, both winter and summer, of the harsh, dry north wind, while the chill which comes with this wind in winter retards and checks vegetation during the first three months of the rainy season, and, to that extent, practically shortens what might otherwise be the season of most rapid growth.

RAIN COMES FROM SOUTHWEST.

The winter rain-current, which is a southwesterly wind blowing in from the sea, has to cross this Coast Range before it can reach and water the dry interior valleys. According to a well-known law, it parts with much of its moisture in climbing the elevation, giving a climate upon the ocean face of the range damp and foggy—home of the redwood and fern, both of which are types of vegetation flourishing only in a comparatively humid atmosphere. After crossing this range, the rain-current thus deprived of a large portion of its moisture, passes on to give a lighter rain-fall upon the level plains of the interior, until it reaches the tall line of the Sierra, where, with the cold of a still greater elevation, the remaining moisture is wrung out of the clouds, giving precipitation largely in excess of that which fell in the valleys; and again we find forests of dense growth, yet of a type that does not, like the redwood, need the constant humidity of the ocean air, which after the winter rains have ceased, rolls in a daily fog to the seaward face of the Coast Range. How thoroughly the Sierra has accomplished the remaining work of condensation is shown in the almost hopeless aridity of the plains lying eastward from its base, and to which the now desiccated rain-wind next passes.

This winter rain-current in its sweep inland passes over the crest of the Coast Range in a more or less continuous sheet; yet, like a a vast aerial river, which it is, it avails itself of every break and depression of the range to pour through in still denser volume. And it is opposite these breaks and depressions of the range that we find the line of greatest rain-fall in the interior valleys, as the lower and more humid portion of the current has at these points been able to reach the interior without having its moisture wrung out in crossing the range. It is in this way that the Sacramento country, with its river-valley leading out to the ocean through the break in the Coast Range which forms the entrance to San Francisco Harbor, has a greater rain-fall and a more humid climate than the plains which lie behind the range. Whoever has stood and watched the evening fog roll in at the Golden Gate, seeking, like a river flood, first the low level of the water-ways, and then the broken passes in the hills, will readily understand how the southeast currents of the winter obey the same general law.

HEALTHFULNESS AND PLEASURE.

Epidemics and virulent infections have been rare and disinclined to spread, and the more general and mild temperature of this region tends to stay the development of pulmonary affections and diseases of the respiratory system, which the chilling fogs and harsh winds of the coast are liable to provoke.

The numerous valleys and pleasure resorts of the mountains afford an unlimited field for those in search of health or pleasure. The whole range of mountains extending the entire eastern boundary of the county is a succession of beautiful mountain scenery. The valleys are often narrow (cañons in places), winding, and with their tributaries are densely timbered; whilst the mountain-sides, often to their summits, are clothed with a dense flora of trees, shrubs, and smaller plants. This verdure, much of it evergreen, gives to the slope of these mountains a dark green appearance.

To a person who has spent all his life in one place, it is difficult to convey a clear idea of the differences of climate, and of the advantages of a climate like that of California. One accustomed only to the clouds and showers of Ireland, or to the hot summers and severe winters of New York, has no proper conception of the influence of the clear sky and dry atmosphere of the San Joaquin Valley, or the even temperature of San Francisco, upon the general comfort. The differences of elevation and latitude give, within a comparatively short distance, all varieties of climate, from sub-tropical to polar.

VARIETY OF CLIMATE.

There are within the boundaries of our State many different climates. At San Francisco in summer it is absolutely *cold*, whilst within three hours' travel by rail, in the interior, toward the San Joaquin, you reach a region where it is, in the daytime, absolutely *hot*.

Snow is very rare on the coast and in the valleys, and never remains on the ground in the valleys, except in the extreme northern part of the State. The Sierra Nevada Mountains, above an elevation of 8,000 or 9,000 feet, are generally covered with snow the entire year, and in many mining towns there are several months when snow remains on the ground.

A marked phenomenon of the climate is the comparative absence of thunder and lightning, which rarely occurs, except in the Sierra Nevada Mountains, where thunder-storms are often as severe as in the Atlantic States. A residence of fifteen years has not witnessed thunder loud enough to disturb one from a noonday nap. The coast and valleys of California are remarkably and wonderfully free from all violent storms of any nature, which occur so frequently east of the Rocky Mountains. Wind, hail, and thunder-storms, so frequent in the Atlantic States, never occur here.

Out-door life here is practicable at all seasons and almost every day in the year. Oppressive heat is seldom felt, and nothing colder than a slight frost during the coldest mornings of winter. During all the summer months, from April to November, there is steady temperature.

Fogs occur only occasionally, and then in the winter time; generally they do not hang over us long, disappearing as suddenly as they came.

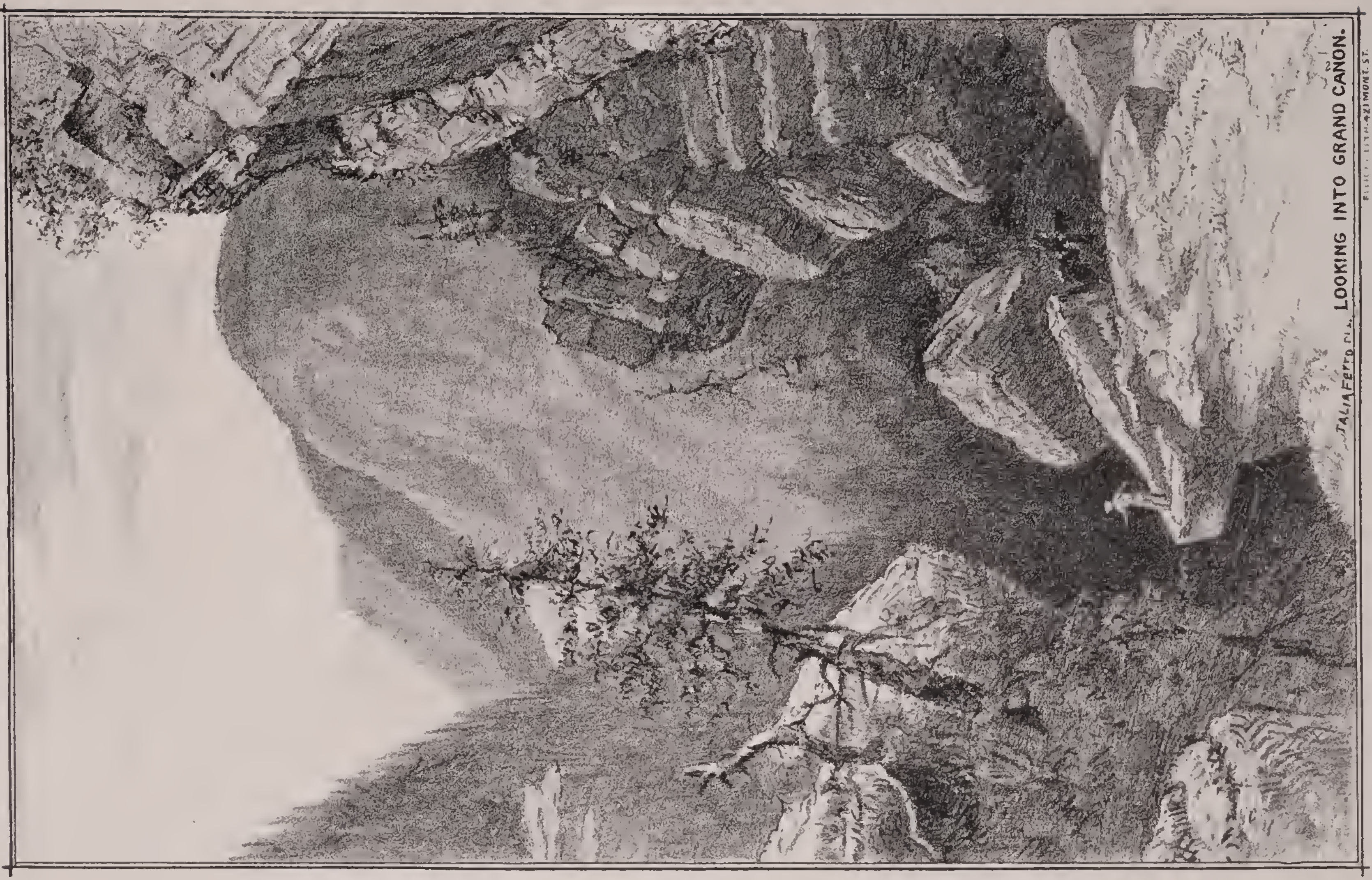
VARIETIES OF CLIMATE.

The climate of California may be divided into three classes; that of the Coast Range, of the interior valleys, and of the Sierras. The climate of the coast, and about San Francisco, is perhaps the most evenly tempered in the world—cool, invigorating, and bracing. This evenness of climate and temperature extends the whole length of the State, with but little variation.

The seasons in California seem to be the reverse of the seasons in any other part of the world. December, at which time the rains have fully set in and the season when winter develops its severity in most parts of the world, and the succeeding months until May, are termed winter, or the "rainy season" in California. About the middle of November the rains begin to fall in the valleys, and the Sierras receive their new fleecy robes of winter, the skirts of which grow thin and ragged as they reach down the western foot-hills of the Sierra range, until they entirely disappear at the edge of the green sward, where, under the same sun and in the same latitude and longitude, the icicle and the honeysuckle struggle for the mastery.

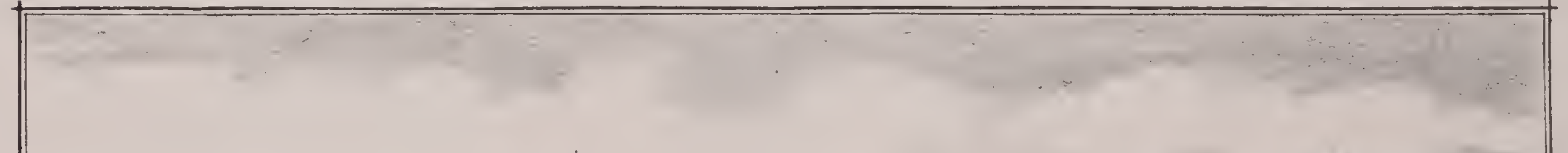
TEMPERATURE TABLE

PLACES.	Height above the sea—in feet.	Mean of Temperature for the year	Mean of Temperature for the coldest month.	Lowest Temperature shown by thermometer in any year.
Sacramento	30	60.48	46.21	28—December, 1849
Auburn	1363	60.71	45.88	27—January, 1871
Colfax	2421	60.05	45.49	26—January, 1874
Marysville	67	63.62	48.70	27—December, 1876
Chico	193	62.46	45.19	23—December, 1872
Tehama	222	65.20	47.01	23—December, 1871
Red Bluff	307	66.22	48.29	26—December, 1873
Redding	558	64.14	46.72	27—January, 1876
Merced	171	63.16	48.14	28—January, 1876
Modesto	91	63.68	47.69	22—December, 1874
Stockton	23	61.99	47.43	21—December, 1872
San Diego	150	62.49	53.30	26—December, 1854
Los Angeles	457	67.69	58.95	39—December, 1876
Soledad	182	59.08	45.23	24—January, 1877
Salinas	44	57.95	48.25	24—December, 1874
Holllister	284	61.46	46.53	27—December, 1874


TALIAFERRO DEL.

LOOKING INTO GRAND CAÑON.

ELLIOTT LITH. 421 MONT. ST.


SKETCHED FROM
ALPINE CAMP
BY GUSTAVE EISEN.
TALIAFERRO.

SOUTH SIDE OF TEHIPITEE VALLEY.

ELLIOTT LITH. 421 MONT. ST.

Lakes of Tulare County.

While Tulare County has the largest lake in the State, it also has many small mountain lakes that are beautiful and worthy of mention.

Many of the lakelets in Mineral King are the work of glaciers. They can be ascribed to no other agency. They are in solid rock, their outlets are over solid rock. Nothing but a moving mass of ice could have worn out these depressions and removed the firm rock that filled them. This would plow up or gouge out the softest rock in its bed deeper than it would that which was harder. Instance, Silver Lake at the head of Lady Franklin Canyon. Its outlet is over the hardest metamorphic rocks. The lake basin is mostly in granite.

MONARCH LAKES.

These lakes are in the high Sierras. Lower Monarch Lake is at an altitude of about 10,500 feet at the foot of Miners Peak on Saw-tooth. The lake is surrounded by meadows covered by nutritious grass. The lower lake covers about twenty-five acres, and the upper, perhaps as much as 150. The depth of these fine lakes probably exceeds fifty feet, and the larger may be 100 feet deep. But this can never be known definitely till there are boats and sounding apparatus upon their smooth, blue waters.

Any enterprising citizen who will put boats and suitable shelter there, will provide most admirable sport for all who are fond of peak climbing, trout fishing and mountain sports in general. There is no better point in all that region from which to visit its deepest and grandest gorges and its lofty peaks that surround you on all sides, within five or six miles.

The upper lake is about 300 feet higher than the lower one. The whole mountain region abounds in beautiful lakes of clear cold water.

TULARE LAKE.

This fresh water lake, or inland sea, is a fine body of water and the largest lake in the State. It is elliptical in form and extends at least thirty-three miles from northwest to southeast, and twenty-two miles in width from northeast to southwest. It covers an area of probably 600 square miles, equal to one-half of the size of the State of Rhode Island. The area of the lake is a very uncertain quantity; several times within the memory of the oldest inhabitant it has been four times as large, and on two occasions, at least, as small as it is now, leaving dry vast tracts of level, rich soil, capable of producing the finest crops without irrigation. Lands now under cultivation have been for years ten or fifteen feet under water.

In 1860 Tulare Lake stood at very near the same level it occupies now. It was raised several feet by the great freshet of 1862, and its area about doubled, and a large stream was discharged from it into Fresno Slough, by way of Summit Lake. From this period the lake began to retire again toward its former level. The freshet of January, 1868, caused Tulare Lake to discharge a sheet of water over the surface of Summit Lake one mile wide and six feet deep. It then covered about one thousand square miles of territory. Much of the land inundated had been surveyed in 1857 and returned as dry lands.

Since 1868 the lake has lowered from one to two feet every year, and is now some twenty feet below high water mark. Since that time it has been gradually decreasing, until now it appears to have reached its minimum. The diversion of the various streams from Kern to King's River has something to do with this shrinkage of its waters undoubtedly, but this would avail little to prevent their expansion to the utmost limits they have attained in the event of a wet season. Should one again occur the settlers on the land bordering the lake would find themselves in an uncomfortable situation, unless in the meantime an outlet, and its present levee, should be provided in the direction of the San Joaquin River.

A large tract of the lands thus laid dry have been surveyed and were returned to the Government as swamp lands; but a ruling that lands laid dry by the retiring of a lake are not swamp lands, caused Geo. Hardinburg of San Francisco, to be appointed to re-examine them, and in many places he found them covered with heavy wheat stubble, without any other reclamation than that of plowing and seeding.

These lands are of a light loam, very fertile, and kept constantly moist by their proximity to irrigate lands on the one side and the lake on the other. They are about as fine looking lands as the American farmer ever cast eyes over.

Some five thousand square miles of the western slope of the Sierra Nevada Mountains drain into Tulare Lake without counting the discharge of King's River, one outlet of which enters the San Joaquin. Half of all the water entering Tulare Lake hereafter will come from Kern River.

In Kern County most of the water has been taken for irrigation, and Kern and Buena Vista Lakes have been very much lowered and much of the lands along Buena Vista Slough have been brought into a state of cultivation. In case of an extraordinary freshet in Kern River then these lakes must be filled and all the low lands of Kern County must be first to suffer before any great disaster befalls the settlement on Tulare Lake.

EXPLORATIONS ON TULARE LAKE.

The only thorough exploration of this inland sea was made in 1882 by Capt. G. W. A. Wright, to whom we are indebted for his very valuable records of the trip and results of explorations.

The first boat of any consequence placed on the lake by a white man, was a fore-and-aft schooner, built for A. J. Atwell, a lawyer in Visalia, and named by him the *Mose Andross*, from a friend of his in the United States Land Office there.

She was about fifty by fifteen feet, and flat-bottomed, that she might draw as little water as possible. She was built in 1875 and was used (as also a small boat had been used before her), to carry cattle and hogs from Atwell's Landing, on the northeast shore near Creighton's point of timber, and from Gordon's Point on the west side, to Root Island or Atwell's Island, then in the south end of the lake, now part of its southern mainland. The next year, this craft was equipped as a sidewheel steamboat, and continued her business for Atwell, until the lake water so receded that Atwell's Island and its neighboring Bird Island, Brown Island, and Pelican, or Skull Island, ceased to be islands and became, as they now are, parts of the mainland on the south shore of the lake.

In February, 1879 Mr. Wright saw this steamer stranded near the mouth of King's River. Soon after that the machinery was removed, the boats dismantled and finally abandoned, and the waters of Tulare Lake knew them no more.

A sail-boat twenty feet long was built by Jim Mc, the boat hermit, and used on the lake for several years, until it was stranded in the summer of '78, and remained on shore occupied by him as his home.

A schooner thirty-six feet long was built for a Mr. Hill, of Lemoore, several years ago, to be used in fishing for terrapin. But she was wrecked in a gale one night on the western shore, and abandoned. She was afterwards drawn out on the beach and dismantled. Near her lay also another smaller sail-boat, no longer in use, though it made regular trips in the spring and summer of '80 and '81 to carry butter from Clark & Cox's dairy ranch to the mouth of King's River for the Lemoore market.

SCHOONER WATER WITCH.

We give in our illustration a view of this, the only vessel on Tulare Lake. We also show the stumps of a former forest near the edge of the lake.

The *Water Witch* has been employed on the lake for the last four years to catch terrapin for the San Francisco market; also, for occasional fishing and hunting excursions. Though small, she is really a well-built boat, and in her our late sail around and over the lake was successfully made. But how came such a boat on Tulare Lake? She was built at least ten years ago at Mare Island Navy Yard, as a dispatch boat to Alcatraz and to the city. She was then called the *Alcatraz*, and was fourteen oar boat, sprit-sail rigged, though used chiefly for rowing. The best Eastern wood was used in her construction, so that her entire hull is in excellent condition to-day, and she leaks scarcely any. She is clinker built—that is, weatherboarded, and fastened together with copper rivets and bolts. She is clipper built—that is, narrow and sharp at both ends, for speed. She is six feet beam, thirty feet keel, and thirty-two feet over all, being about three tons burden. She has a six-inch keel, and a five-foot centerboard.

After several years employ as a Government boat, the *Alcatraz* was sold to parties on the Sacramento, and used a season or two as a hunting boat. She was then bought by a queer fellow, such as is known in these days as a crank, who determined to bring her to Tulare Lake, and make a fortune by gathering the eggs of ducks, gulls, and other wild fowl to sell in San Francisco. He was familiarly called "eating Smith," so morbid was his appetite and so great a dread was he to hotel-keepers. He spent most of the summer of 1878, bareheaded and barefooted, tugging away with pole and paddle and rope to get this boat out of the Sacramento River, and up the San Joaquin to the head of navigation on Fresno Slough, at Watson's, now White's Ferry. He then had it brought on a four-horse wagon to Kingston, launched it there on King's River, and floated it to the lake, eighteen or twenty miles distant. Making one or two trips on the lake, he found that he could not realize his dreams. In fact, he could not get enough to eat on the lake. So he sold her to the McCoy brothers for some cows, and started a dairy ranch. Still, he could not get enough to eat. So he ended this long enterprise by killing the cows and eating them, having enough beef for once. The McCoys used the boat for two seasons successfully in terrapin fishing and excursions, sending to San Francisco as many as 300 dozen in one season, until a severe squall capsized and wrecked her, at a point about three miles southeast of the mouth of King's River. She was rigged at that time as a sloop with a single large foresail, which made her top-heavy, and a jibsail. In this condition she was bought by her present owner, Capt. T. J. Conley. He remodeled her hull, decked her—the deck for about one-third aft being a foot lower than forward—rigged her as a fore-and-aft schooner, with wire standing rigging, and made her a very safe and dry craft. Her mainmast is eighteen feet high, her foresail twelve feet, her jib five feet, and, with mainsail, foresail, and jibsail, she carries between forty and fifty square yards of canvas.

DEPTH OF THE LAKE.

The expedition made many measurements of the depth of water. At some miles from the shore they got soundings of 6, 7, 8, and 9 feet, the latter about half a mile from shore. In the next half mile they reached 11 feet, and an hour after the sounding, two miles from the western shore was 15 feet. The barometer was 29.00, temperature of the air 61°, and of the water 74°, about 10 miles from the western shore, and lake Gordon's Point was barely visible nearly south; they got for some distance the deepest sounding 21 feet.

At 2:10 P. M. barometer was 29.85, air 69°, water 66°, sounding 21 feet. They then tacked ship and sailed due south. The soundings of 21 feet continued until at 2:45 P. M. sounded 20 feet, at 3 P. M., 18 feet; and 3:40 P. M. 15 feet. They found all the changes in the bottom very regular and uniform, and all brought up from the bottom, at many points, with sounding lead prepared for the purpose, a very fine bluish-gray mud. They had no doubt found the deepest water of Tulare Lake, which lies toward its north and west shores rather than at the center. All the southern part of the lake is very shallow, as was found by many subsequent soundings. These soundings correspond well with those made by the engineers under Mr. Brereton, when the capacity of the lake, as a reservoir, was carefully taken when the now exploded plan of a west side canal was at its height. The deepest sounding obtained then with very careful work was 31 feet over the same ground, where this party obtained 21 feet. This shows a fall in perpendicular height of 10 feet in the lake water since the fall of 1873, or 10 years ago.

Soundings across all the southern portion of the lake showed 3, 3½, 4, 5, and 6 feet, and then gradually diminished to 5½, 5, 4, and 3.

BUENA VISTA SLOUGH.

This slough formerly emptied into the lake connecting it with Kern and Buena Vista Lakes to southward. But no water whatever flows there now, and not a particle of water in sight south of it, though eight years ago the *Mose Andross* and other boats could pass through Buena Vista Slough, and through narrow straits between Skull and Atwell's Islands, and sail for miles to southward in water from ten to fifteen feet deep. Looking northward a depression between Gordon's Point and the main-land is also perceptible. The water ran through here four or five years ago, and made an island of what is now Gordon's Point.

SKULL ISLAND.

This island extends between five and six miles from west to east; is but little more than half a mile wide, though now, like Atwell's Island, it is but a succession of rough sandy ridges or dunes. These are now covered with a thin growth of salt grass, their highest parts being about twenty feet above the lake surface. Yet, when Atwell's Island, where two old houses still stand, was surrounded with water, it was seven or eight miles long east and west and one to two miles wide, and was covered with good feed, such as wire-grass, or tule-grass, "cat-tails," or flags, alfilerilla, and the wild chufa, or grass-nut, the same, perhaps, as the one growing in Owen's Valley, and called *taboose* by the Piute Indians of Inyo and Mono Counties. From 1875 to 1877, large numbers of hogs and cattle were carried there from the main-land on the *Mose Andross*—which was first a schooner, 50x15 feet about, and then a side-wheel steamboat.

QUANTITIES OF HUMAN BONES.

The explorer goes but a few steps south from the beach on this Skull Island, of which so many doleful tales have been told about circles of human skulls, and myriads of human bones being found there, before he is convinced, by countless fragments of human skulls and bones on the surface, mixed with fragments of the hardest rocks from our loftiest mountains, that he is, indeed, on one of the most extensive and oldest burying grounds of the aborigines of our Pacific Coast, a place that is fittingly marked to-day by the gloomy name it bears. So soon as this party had reached a point 100 yards inland, they found a bleached human skull entirely exposed on the sand, and around it a number of bleached bones that were probably killed and buried there by the Indians fifty or sixty years ago in a battle of which Indian tradition tells us, and mentioned elsewhere.

RARE COLLECTION OF CURIOSITIES.

Captain Wright had the good fortune in digging at another point to exhume with a skeleton a perfect and handsome arrowhead of obsidian, or volcanic glass, jet black, well shaped, 4⅛ inches long and 1¼ wide. The most curious point about this was that it seemed to rest in the body, as if it had been shot there and was the cause of death.

Broken arrow and spear-heads, and fragments of chert, slate, quartz, flint, and other hard rocks are found scattered broadcast over and in the grass as a token, perhaps, of ruin and desolation, but you seldom find a complete stone implement. Many of the most curious of these fragments are pieces of pottery, stone breast-plates, etc.

Mr. Wright showed a number of handsome fossil shells that are found in large quantities in the foot-hills near a point of the lake. These were chiefly what are known among geologists as miocene shells, and were species of what are called (1) the *cardium* (2) the *pecten* (3) the venus. There were, also, some periwinkles.

DREARY SURROUNDINGS.

An adobe wall once the home of a Mexican called Pasqual, and a frame shanty west of the mouth of King's River, and called "The Deserted Castle"—all near the lake-shore—are the only signs of human habitations for a distance of between thirty and forty miles along the barren, desolate, repulsive waste on the western shore of this great inland lake. Not another building is there, until you see the two unoccupied houses on what was once Root or Atwell's Island, now part of the main-land at the extreme southeastern end of the lake.

The foot-hills of the Coast Range Mountains approach near to the lake, some only about a mile distant in a straight line. But none are so near as to make anything like an abrupt bluff on the lake-shore. Indeed, nowhere around the lake is there any evidence that any such bluff has ever existed. The banks rise gradually, but more rapidly at this point than anywhere around Tulare Lake, and some half dozen successive terraces mark within 600 yards of the water's edge the various heights of the lake since its highest during the floods of January, '62 and '68, when its surface was eighteen or twenty feet higher in perpendicular than at present. Its depth, also, increases more rapidly on this shore, the deepest soundings found that day being ten feet only, a mile or two from shore.

Not a sign of a tree exists on all that shore, and it is full twenty-five miles to any timber in the coast mountains. The largest growth is what is called the "greaseweed," which proved to be identical with the "sagebrush" of southern Kern, and of Inyo and Mono Counties. It is used for fuel, and quite a long brush fence has been built of it, inclosing about eighty acres of land. The shore north and west is low, and the very picture of desolation, with scattered bands of cattle and hogs along the water's edge.

PELICAN ISLAND.

This is a low, narrow strip of land in Tulare Lake, totally bare of vegetation as yet, and is a bar formed by the deposits of King's River as an extension of the east bank of its east channel. It is a mile long, or more, from ten to sixty feet wide, and not more than a foot or eighteen inches at any point above the present lake surface. On this long, narrow, bare island thousands of our common white pelicans, and, associated with them on the best of terms, and also nesting, were hundreds of that one of two species of Pacific Coast cormorants, known as Brandt's cormorant.

GULL ISLAND.

This island extends westward into the lake from the south bank of Tule River. It is a narrow bar now forming a small island like Pelican Island at the mouth of King's River. As the lake surface falls, this bar is forming quite an island, though it is yet low, muddy, and without vegetation. On it may be seen many pelicans and large numbers of gulls, and from the latter, gave it the name of "Gull Island."

It should be remembered that this and "Pelican Island" are now the only genuine islands on all the broad surface of Tulare Lake, and they are so narrow and flat as scarcely to deserve the name.

STORMS ON THE LAKE.

The lake is noted for its sudden and rough storms. The following account given us by J. W. A. Wright will give some idea of them:—

"The Captain of the *Water Witch*, knowing that all hands were tired, and would sleep soundly, requested me, if I awoke in the night and found a heavy wind from the northward, to call him, as it might be best to sail from that dangerous coast by night. Soon after 10 P. M. the heavy rolling of the schooner awakened me. The waves from the north were getting heavy, and a strong wind was whistling from the northwest. I called Captain Conley a half hour later, for matters were getting worse and worse. He said we must sail at once and try to get around Gordon's Point, where we could be protected in Terrapin Bay from the fury of an approaching storm. So furious was the wind that only the mainsail and jibsail were set.

"In ten minutes' time the anchor was up, and away we dashed, with a spanking breeze, in a high sea for Tulare Lake, sailing southward. The stars were bright and beautiful, though occasionally clouds obscured them, and with the soundings were our only guides. We sailed first south toward *Scorpio* till our sounding was seven feet. Then we turned south of east, our soundings varying to six, seven, eight, seven, six, five and one-half feet, heading towards the star *Altair* in "The Eagle," and sometimes to "The Dolphin." Captain Conley was at the helm, Lewis Atwell looking after the sails, and your correspondent was to the leeward casting the load every five minutes or less. From our anchorage to Gordon's Point, about nine miles, is one of the very roughest parts of the whole lake. Hence our anxiety to get away from it, even by a risky sail at midnight.

"Gordon's Point is a low, sandy beach, extending out from the southwest shore of the lake, at a point less than three-fourths of the distance from the mouth of King's River to the Willows, on Skull Island. Several sandy spurs jut out from it to eastward into the lake, marking shoal water at several points. Its name is said to be from a man who was murdered near it for his money. This Gordon's Point, extending out a full half mile from the main-land, forms just south of it a cove that forms a very safe harbor from the northern winds and waves.

"Part of the time we flew before the wind, at the rate of eight or ten miles an hour, then the wind would lull and our speed would slacken a little. Part of the time the *Water Witch* kept ahead of the heaviest wind. Then came a lull, but soon the wind would catch us again, and away we went, dancing merrily over the troubled waters. It was splendid, exhilarating. Once in a while a larger wave than usual would dash over our sides, and many a time the boom of the mainsail dipped to leeward in the waves, but the little schooner rode like a duck, rolling but little, and before 2 A. M. was safely anchored in three feet of water near Gordon's Point There we had almost a calm, but to northward beyond the narrow neck of land protecting us, we could distinctly hear the roaring winds and waves.

"But few noises have ever I heard that sounded more dismal, than in our night sailing on Tulare Lake, when in the midst of our silence we heard the gloomy howls of the coyotes as they prowled along the lake-shores searching for their prey. We heard them every night when we were near shore."

In water from three to six feet deep along the shore and all around the lake, are found large quantities of the chief one of the only water weeds growing anywhere in the lake. Some few are found in the edge of the shallow water in the mouth of King's River, but nowhere else now are there any tules dead or living within less than 200 yards of the water's edge. Nothing like a water-lily is found anywhere upon Tulare Lake. Its chief water weed grows in thick masses, with stems four to six feet long, its upper branches, leaves, and seed pods floating on the surface. Fishermen find that where it grows is usually very soft and boggy, and though fish and terrapin frequent these dense masses of vegetation—like groves under the water—they are generally dangerous spots to attempt to drug the seine. On a small scale, they are very similar to the numerous masses of sea weed in mid-ocean which Maury and others describe as "Sargossa Seas." These masses on the lake are sometimes torn from their roots by storms and carried into deep water. On careful examination the low stems are round, smooth, pink, one-eighth of an inch through, and jointed, the joints from one to twelve inches long. These main stems branch chiefly toward the upper end, and at the joints. The leaves are green, succulent, and strap-shaped, two to three inches long, one-fourth inch wide, embracing the joints like sheaths, and tapering to a point. Each stem has several small seed pods near its ends. These look like small ears of corn or the seed of the "Wake-robin," and are pinkish green in color. The only other water weed on the whole trip is a small feathery green moss, with stems two or three inches long, growing on the lake bottom in water from four to twelve inches deep. It belongs to the "Algæ" and is most probably what botanists call a "Conferva," species uncertain.

TERRAPINS FROM TULARE LAKE.

From Tulare Lake come the turtles that make the rich turtle soups and stews of San Francisco hotels and restaurants. It is the western pond turtle common in the fresh water ponds. The Italians call it *El-la-chick*. These turtles are sent in sacks to San Francisco. During the season more than 180 dozen found a ready sale at the bay. Terrapins are taken with a seine. The seine used for this purpose is a common fishing seine, 100 feet long. To each end of the seine on the upper side a brail, or half-inch rope, sixty feet long, is attached. Two men stretch the seine in the water from two to four feet deep, by holding up the ends of these brails. They wade parallel about 200 feet apart, and drag the seine from 100 to 200 yards toward the shore or parallel to it, according to the indications where the terrapins are. The main signs of the presence of the terrapin are their heads held above water to get fresh air for a short time, at intervals. The two men then draw the ends together and lap them, making a circle. They then commence at one end and draw up the entire seine, taking out the terrapin and sacking them as they are found. In this way, they sometimes catch eighty or ninety at a haul, under favorable circumstances. The largest are eight inches long and eight inches broad. They rarely drag the seine for these terrapin without catching more or less fish; sometimes only the worthless suckers or "greasers," which are very bony; occasionally some lake trout, a species of salmon trout and an excellent fish.

WILD ANIMALS.

The coyotes hold almost undisputed sway of a large scope of country west and south of Tulare Lake, and woe to the cattle or hogs, or antelope that mire down anywhere within their reach. Captain Conley and Lewis Atwood found on a boggy part of the lake on the north edge of Atwell's Island, thirty or forty carcasses of cattle that had mired down and been devoured by coyotes. At one point they found three or four still living but so torn and mutilated by the ferocious wolves that they had to kill them to end their sufferings. Finding these cattle mired near the shore, the light-footed coyotes leap upon them while they are still living. They found one poor brute still alive though the coyotes had actually gnawed into it and drawn out part of its entrails. Coyotes hold high carnival there.

Coyotes were thick here in 1849 and while they never attacked a man, they would come into camp and carry off anything that was lying around loose. They have been known to steal meat from under a man's head while he was asleep. The coyote is a species of wolf, but is by no means so large or ferocious as those of the Eastern States. Of course they became a mark for every sportsman, and their number diminished very rapidly. There was a time when it appeared that they were about to become extinct, but for the last few years they seem to have become more numerous, and are giving the wool-growers of the foot-hills a good deal of trouble. They are on the plains and west of Tulare Lake or along the river. They are more shy now than they use to be and are much harder to kill.

The coyote or fox is well known to the Californian—a kind of link between the cat and dog, and is sometimes called prairie dog, but is very different from the animal of that name found on the western plains. They often followed the emigrant train to pick up the bones and crumbs that fell by the way. They would steal eggs and chickens from the roost, but were great cowards, and a small dog would drive them off.

BIRDS OF THE LAKE.

Few birds were seen far out on the lake, and these were chiefly grebes (*podiceps occidentalis*). These are the long necked birds that are so noted as divers. They often keep only their heads above water. and down they go at the flash of a gun. It is very difficult to kill one of them. They frequently call to their mates at all hours of the night.

Pelicans and cormorants are found in considerable numbers, also large numbers of "leather-winged" bats, that were skimming the surface in chase of Tulare Lake gallinippers, which sing more or less every evening on the lake.

Professional hunters kill and ship every week from Hanford large numbers of swans, wild geese, and ducks. Private parties frequently go to Tulare Lake, spend a day or two there and return with plenty of these fine game birds for home use. A party lately returned from the lake, where they spent two nights and a day, brought home two swans, a white pelican, a dozen geese, and nineteen ducks. The abundant waters of the valley attract nearly all the species of the above game birds common to California.

FISH OF RIVERS AND LAKES.

The best fish taken there, or by the Italian fishermen in the lower part of King's River, and sold in large numbers in May and June, in Hanford, Lemoore, and Grangeville, is what is commonly called the perch. They are undoubtedly black bass.

Few portions of California, if any, are better supplied with water as resorts for water-fowl and fish than is the country around Lemoore, Grangeville, and Hanford, from the abundant flow of King's River in winter and spring, and its partial flow in the summer and fall months. About four years ago the Fish Commissioners of California put fish of the black bass and white fish species in Tulare Lake. Their descendants have come up King's River during high stages, and thence followed Mussal Slough ditch, when running full of water, into little ponds, where they are now found in considerable quantities. Here, then, we have evidence of three new species of fish added to the waters of Tulare Lake and King's River, including the catfish.

Timber Supply and Mills of Tulare.

THE county is supplied with an abundance of timber The finest oak grove in the State occupies the delta of the Kaweah, and covers not less than a hundred square miles of territory. This timber makes excellent rails and is employed in furnishing fuel to settlements in other counties. For five miles northward and twenty miles southward from Visalia, and extending across a belt of more than twenty miles in width, these large oaks are thickly distributed, in some places making almost a dense forest, while in other places they are less numerous. All the lands upon which these trees grow are of the very best quality, and, where cultivated, alfalfa and grain grow beneath their shade in luxuriance.

THE BIG TREE GROVES.

Groves of big trees, *sequoia gigantia* are along the western slope of the mountains, for a distance of seventy miles, in this county. More than half of all the known specimens of this species over sixteen feet in diameter are found in these groves, and here, so far as known, are the only forests where young trees of the species appear. Unfortunately, sheep men, in burning off the mountains to enable their sheep to penetrate the undergrowth, have destroyed hundreds of thousands of young trees of this species, and it may be safely assumed that more than ninety per cent. of all the young *sequoia* germinated from seed in the forests of this county within the last twenty years have thus been destroyed by fires.

On the Sierras is the most magnificent forest in the world. This forest is beginning to attract more than local notice. Strangers are incredulous, and refuse to believe the truth in regard to the number and size of the mammoth trees. They have remained almost unknown to science.

The number of these great trees is unknown, we might say countless. The forest is but partly explored, but this much we know, there is nothing like it; it is unrivalled, and grand beyond all imagination. The uninitiated would be astonished to count the consecutive rings of some of these giants that have been burned to the heart. They are older than Rome; old as the pyramids, and still green as if there had been an eternity of time in the past.

VAST FORESTS NOT AVAILABLE.

It is doubtful if the vast forests on the upper Kern and its tributaries can ever be made available for lumbering purposes. Evidently this can be done only by very long flumes descending the Kern for thirty, forty, or fifty miles, from points where mills can be built before attempting to cross either of the great divides to east or west. It is very questionable whether any of these divides can be successfully crossed in any part of Tulare County. The only forests of the Sierra available for lumber are those on the western slopes of the most westerly or the Mineral King divide. It is here alone that the redwood groves exist.

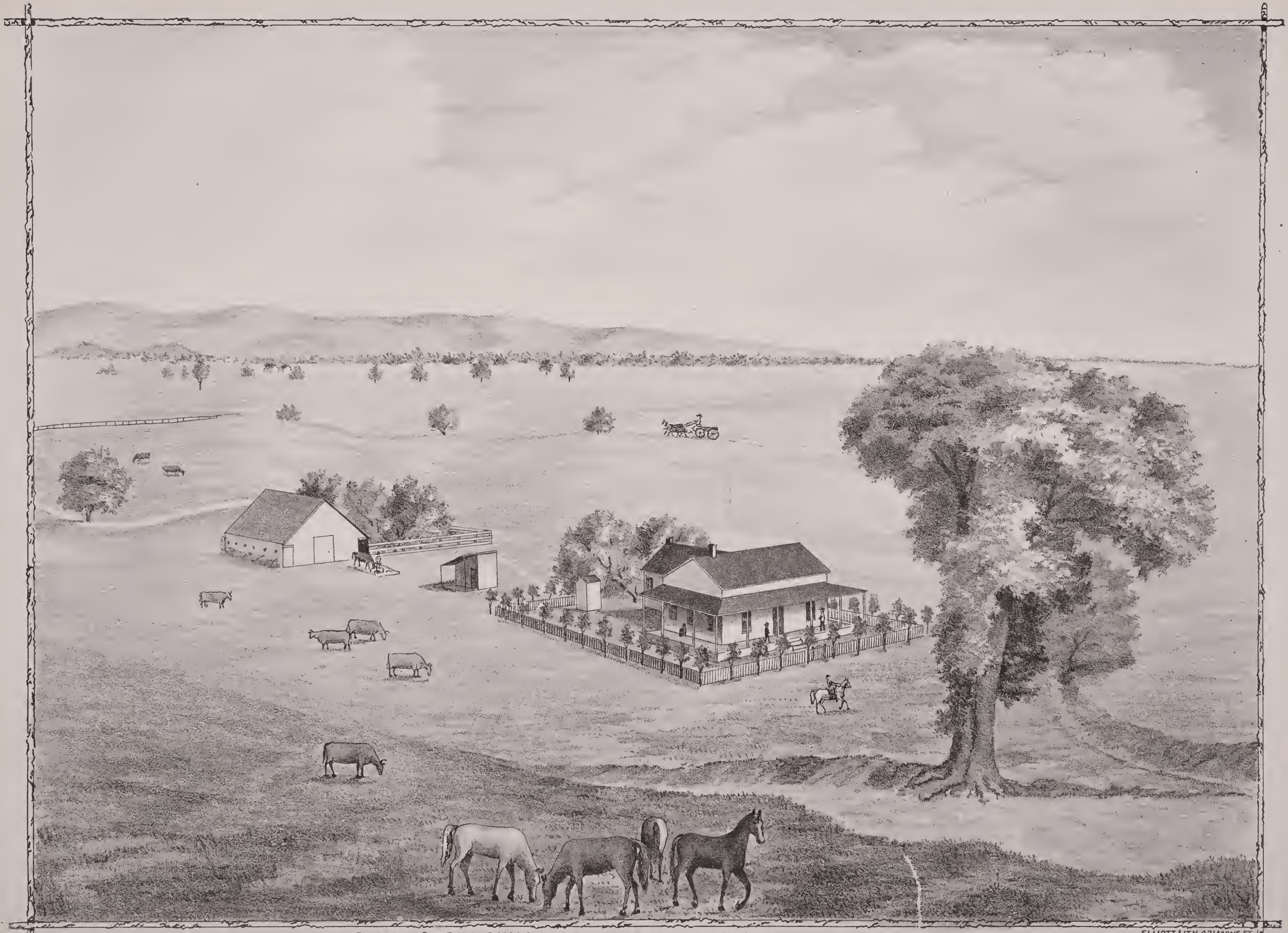
Consequently, the proposed Too-man-i-goo-yah Park, as a Government Reservation, like the Yellowstone Park, would inclose none of the *sequoia* groves, and would not interfere with the important lumber interests.

WASTE OF TIMBER.

It will be many years before the western slope of the Sierra is stripped of its trees; because these resources are so vast and the cost of getting the timber to market is too great at present. The few saw-mills do not make much impression, as yet, upon the forests. Probably the sheep-herders destroy more timber every year than the saw-mills. After the pastures dry up in the lower foot-hills, the sheep are driven into the mountains, where there is fresh herbage all summer. Besides the natural grass in many small meadows, the sheep browse upon the young leaves of many shrubs, and so are kept in excellent condition.

The forest is of no consequence to the sheep-herder, except as it affords sustenance for his flocks. At night he has no corral. Wolves, panthers, and bears abound, every one of them ready to pounce upon a stray sheep or lamb. In the place of the corral, a number of fires are set, in fallen timber or living trees, at points which will hem in his flocks for the night to such an extent that wild beasts are kept off. These fires are left burning after the sheep-herder departs. They burn for days, sometimes covering large areas. One can hear the great pines fall in the night, which may have been burning at the base for days.

The timber waste is immense. All along the western slope



RANCH & RESIDENCE OF J.C. HAYS. JR. ELK BAYO. TULARE CO. CAL.

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of the Sierra for seventy-five miles into the mountains, the marks of former fires can be noted at the base of the great sugar and yellow pines. There are but few of the large trees that do not show marks of fire, which at some time has been raging there, although the guardianship is now more careful, and there is no present danger that these famous groups will again be overtaken by fire. The waste of water and the waste of timber go on, and as yet no Legislation has furnished any adequate remedy.

This timber belt is from twenty to forty miles in width, and many of the pine trees would be considered of enormous size were it not that the "Big Trees," so-called, are so much larger. Pine trees from six to ten feet in diameter, and from two to three hundred feet in height, are not uncommon.

The climate of these mountain regions is in the summer season most delightful, and particularly favorable to persons subject to pulmonary complaints.

FIRST SAW-MILL.

The first attempt at making pine lumber was commenced about 1856 by two men, named Smith and Hatch, who after much difficulty found a trail by which it was possible to get to the pines with wagons. The road was a very primitive one winding around rocks and brush, up and down hills that now look almost too steep to lead a pack mule over, at length reaching the lowest pine at what is now called the Whitaker Ranch, on Old Mill Creek (by him called Fern Glen). They built a small sash saw-mill in the creek, run by a flutter wheel. As the supply of timber here was limited and very poor, they soon moved up to a place that is now called the "Old Mill" Crossing of Old Mill Creek.

About 1857 appeared on the scene a man for many years after closely connected with the lumber business of Tulare County, J. H. Thomas, still a resident of Visalia. He bought the mill, refitted it, put in a steam engine, and began the manufacture of lumber on a more extensive scale.

By the spring of 1862, the demand for lumber had grown so great that Mr. Thomas at great expense repaired the road and built a fine new double-circular saw-mill, with forty horse-power steam engine, one mile further up. However he was never to reap the reward due him for his labor and expense, for, during the memorable flood of that winter, a land-slide from the mountain just above the mill dammed the creek to a great height with earth, rock, and timber, making an immense reservoir. When it gave way, it took Thomas' Mill, and with one wild crash scattered it in worthless masses of rubbish for miles along the creek. He had sold his old mill to a man by the name of Fezzan, the price to be paid in lumber when the mill sawed it. The mill had been moved about six miles to the south, and, before it accomplished anything, was ruined by the same flood that swept the new mill away.

OTHER MILLS ERECTED.

About the same time that Thomas began his new mill, some people under the lead of two men by the names of Bostwick and Ritchie, by private subscription and credit, procured a mill of the same capacity of Thomas' which they set up at Shingle Flat, some three miles farther east. They called it "The People's Mill." This now was the only saw-mill in the county, and, as is common with such property, owned by no one and bossed by every one, it soon fell into litigation and passed into the hands of I. H. Thomas & Bro., in 1864.

The spring of 1865 brought a new company in the field. An enterprising stockman named Jasper (Barley) Harrell, in company with S. B. Corderoy and the late R. A. West, began the construction of a water mill near the old Fezzan mill, to be run by a twenty-six feet overshot wheel. The mill was completed and fitted with a single sixty-two inch circular saw that fall. Two of the original owners having drawn out, the mill was now under the ownership and management of Harrell & Rodgers. They gave it the name of "Forest Mill."

In the spring of 1866 there were two mills in running order. The People's Mill was owned by the Thomas Bros. and W. T. Osborn, late County Supervisor. They employed about twelve men and sawed over 1,000,000 feet of lumber that summer, for which they found ready sale at fifteen dollars per thousand feet. The Forest Mill sawed three or four hundred thousand feet. The two mills were not able to supply the demand that year.

HOW LUMBER WAS MARKETED.

The roads were still in a very primitive condition, no more work having been done on them than was absolutely necessary to make them passable. A team generally consisted of seven yoke of oxen and two wagons. At first the wagons were without frames or breaks. They depended altogether on lock-chains, with sometimes a log or tree draging behind to hold the wagons back, going down the steep hills. The oxen in the team were called bulls, the drivers were called bull-whackers. They drove with a club about two feet long, to the end of which was attached a huge lash some twenty feet long.

In the spring of 1868, timber becoming scarce, the Thomas Bros. removed their mill about a mile and a half northwest to a new pinery and changed its name to "Sugar Pine Mill." They did not get started till August, and sawed some 500,000 feet that year. The Forest Mill had been torn down by a land-slide on Christmas night 1867. It had rained all day as it had done for a week. The clouds were low; the day was dreary and lonesome; the night was one of those intensely dark, stormy nights that occasionally come in the pine forest, that one has to see in order to realize. Some time in the fore part of the night, quite a tract of land with heavy timber, on the side of Redwood Mountain, slid into the creek, forming a dam which collected a large head of water, then giving way started down the creek crashing the timber before it. It carried away several log houses and swept away the Forest Mill.

After this calamity, the owners of the Forest Mill found it necessary to rebuild. They decided to move it out of reach of high water and enlarge it to a double circular saw-mill, to be driven by a fifteen-inch double-turbine water-wheel, under 140 feet fall, the water to be conveyed on an incline down the side of the mountain in a wrought iron flume. The mill was accordingly constructed on this plan; but when it was ready to start, they found they had something of the nature of an untamed elephant on their hands. Although they had an abundance of power, they found it very difficult to control water under such an immense pressure. The first time the water was turned on, a joint of the flume parted, deluging the mill and the operatives with water; next it burst the cast iron case around the wheel and continued to behave unruly. James Barton (now ex-Supervisor) bought the mill for 600,000 feet of lumber in the mill yard, to be delivered in two years from that fall.

In the spring of 1868, P. Wagy (ex-County Treasurer), in company with H. Moore and D. Demasters, took their mill to the mountains, and set it up about four miles below Thomas' Mill at a place called Loggers Camp. Here during the summer they sawed about 700,000 feet of lumber.

But this firm had personal difficulties, and G. W. Smith, now ex-County Surveyor, bought the interest of Demasters & Moore, in the Wagy Mill. The new firm decided to move it up to a place on Dry Creek, a mile and a half north of the Forest Mill.

ROAD CONSTRUCTED TO THE MILLS.

The winter of 1868 and '69, Smith and Wagy and James Barton built a fine new road from Frame Flat, on Ashspring Hill, to the pinery, some six miles, at an expense of some $5,000. This road they afterwards donated to the county, when it saw fit to survey and accept it. Thomas also spent a good deal of time and money in building roads.

In 1874 the Supervisors ordered the Roadmaster, G. M. L. Dean, to put the road in order. This he proceeded to do in the most approved style, building culverts and digging new grades where they were necessary. When the bill—some $3,000—was presented to the Board of Supervisors, they professed absolute horror at its magnitude; but as they had ordered the road put in repair, without limit as to expense, they finally issued the script to pay it. The road is substantial, will endure as long as time, and will always be a necessity. This made twenty-five miles of the best mountain road in the State, in proportion to what it cost the county. It is the only road from Visalia to the Big Tree Grove.

Thomas' Mill, valued at $10,000, caught fire in the night and burned to the ground. Everything was a complete loss except the boilers. Several thousand feet of lumber was also burned; and thus was destroyed the best mill in the county up to that time.

In the spring of 1871, Mr. Barton, becoming discouraged by the previous hard year and his bad luck, and deceived in the capacity of the mill, turned back the Forest Mill to Mr. Harrell, who immediately re-sold it to R. A. West and W. T. Osborn for $3,000.

Mr. Wagy, having bought out his partner, Smith, now moved his mill to the site of the old Fezzan Mill, now called Mill Flat. This was in such close proximity to the Forest Mill that some hard feelings were caused between the two companies. This was heightened when Wagy began to sluice his sawdust into the creek, closing up the turbine wheel of the Forest Mill. The latter was closed down, and for a while litigation seemed imminent. It was, however, finally settled by Wagy wheeling out his sawdust and burning it, instead of sluicing it into the creek.

The spring of 1873 promised another good season for lumbermen. The Forest Mill, now almost universally called the "Turbine Mill," made a very early start under the management of J. H. Campbell and R. A. West, and after a little litigation with Thomas, settled down to steady work, and did very well, sawing some 400,000 feet of lumber that year.

Wagy & Co. started early that spring, and everything ran smoothly.

A FINE MILL ERECTED.

J. H. Thomas began the erection of a mill that was to excel everything in the county up to that time. He selected a site on the north side of Redwood Mountain, about one and one-half miles beyond Wagy & Co.'s, where he had taken the boilers of his mill that burned down, and the boiler of the one that the flood destroyed.

Early in the spring of 1874, Wagy & Co. were on the ground, rapidly pushing their large new mill to completion in the Stephens Pinery. Wagy bought out one of his partners, McLean, and then became a two-thirds owner, Smith retaining his one-third interest. They tore down their old mill, took such of the machinery as could be used in the new one, and disposed of the rest.

Mr. A. Tyner bought the engine and took it to Mussel Slough, to run a flouring-mill. It is the little Hoadley engine that now drives the Grangeville flouring-mill, and it has given power to saw more lumber than any other engine in the county.

Wagy & Smith bought a new sixty-horse engine to run their mill. The capacity of the mill was less, but the variety of work turned out was greater than that done at Thomas' Mill. It contained the following machinery: Two sixty-inch circular saws, one gang-edger of five twenty-inch saws, one thirty-inch cutoff-saw, one band-saw, one small bench-saw to trim paling, one paling-header, and a large planer.

In July, 1873, H. D. Barton began the erection of a small water-mill, with muley saw and edger, in the lower edge of the pines, one mile above "Whipstalk Camp." This he named the "Cedar Spring Mill."

THE CEDAR SPRING MILL.

The Cedar Spring Mill struggled with poverty, and was treated with contempt, on account of its lilliputian capacity, which rendered it the butt of many a good jest by those that little thought that it would stem the tide and pay its way through, and come down to the present time, when its colossal contemporaries, after bankrupting every firm that had taken hold of them, had long since made their last struggle. Its proprietor, a mechanic of very moderate ability, had been almost a constant employee at some of the mills since 1865; and with little money and no credit, and almost with his own hands alone, built this small mill.

He got a new sixty-horse-power engine to drive the following machinery: Two sixty-inch circular-saws, one twenty-four inch edger-saw, one cutoff-saw, one paling-saw, and a planer. He got this magnificent mill ready to start about the middle of July; and, surrounded by a fine forest, as it was, it bade fair to supply a need long felt—that of a superior quality of redwood and sugar-pine lumber.

Wagy & Co. determined not to be outdone. With that spirit of rivalry which seldom leads to success, they bought out the Stephens brothers in what was called the Stephens Pinery, about four miles north of the Union Clipper, and began the erection of a mill calculated to equal if not excel that of J. H. Thomas.

FOUR MILLS RUNNING IN 1874.

Four lumber-mills began operations in 1874. The Thomas, or Phœnix Mill, was rented to a man by the name of E. D. Merritt, a lumberman of considerable experience on the coast. Mr. Merritt was to take the mill and cut 8,000,000 feet of lumber for Mr. Thomas, at a certain fixed price per thousand for each different kind of lumber sawed. These prices were found to be less than what the lumber could be manufactured for.. Mr. Merritt had, at the start, taken in a partner named Osborn, a wharf-builder from San Francisco.

A LARGE MILL.

When the mill started, it was found to be of such a capacity—25,000 to 30,000 feet per day—that it was discovered to be almost impossible to supply it with logs, and the facilities for removing the lumber were so inadequate that it was difficult to keep the mill from getting blocked up, so that it took a large number of men to keep it running at its full capacity.

It was soon after leased to the Wallace brothers, but they soon retired from the mountains with a long list of liabilities, empty pockets, hearts of lead, and an invaluable stock of experience.

In 1875 the lumber business had reached its zenith. The Forest Mill, under the management of Barton & Campbell, made its best season's run. Early in the spring the Phœnix Mill changed hands. Mr. Thomas, after so many disasters, found himself so prostrated financially that he was forced to yield up his mill to his principal creditor, R. E. Hyde, now President of the bank of Visalia.

Joseph H. Thomas was a pioneer of 1850. In January, 1854, in company with a man by the name of Bodfish, he began the erection of a saw-mill in the coast redwoods near Gilroy, in Santa Clara County. He continued in this mill till 1857, when he sold out to his partner and came to Tulare and bought the saw-mill belonging to Smith & Hatch as first stated.

SWEETS' SAW-MILL.

About the first of May, 1881, Mr. Smith Comstock, a man of considerable experience in the lumber business, entered into a contract with S. Sweet & Co. to cut and saw into proper shape 3,000,000 feet of lumber at the old Wagy Mill. In pursuance to the contract Mr. Comstock employed a large force of men to assist in the work, and continued to run the mill. There was about 2,700,000 feet of splendid lumber cut, one million of which was hauled into this county and nearly the same amount into Fresno County. It has cost Sweet & Co. about $30,000 to get this lumber cut, and none of the money went out of the county for freight.

A ROAD NEEDED.

If there was a good road made through the mountains to this lumber region, it would be a great benefit to both the lumber dealer and farmer. Lumber could be sold at reasonable prices in the valley, for the reason that it would not cost more than one-half as much to get it hauled as it does at the present time. There ought to be a good county road made up to this fine belt of timber.

OTHER MILLS CONSTRUCTED.

Green & Sharpton erected a steam mill in Crane Valley in 1872.

In 1854, L. Keeney started the Visalia Flouring Mill on Mill Creek, which runs through the village. This mill runs part of the season by water-power and the balance of the time by steam. The proprietors of the Tulare Flouring Mills are constantly shipping large quantities of flour to Arizona, New Mexico, and Texas. They also receive large orders from points in the southern portion of this State, and all agree in pronouncing the flour bearing the Tulare Valley brand among the best in the market.

The Tulare City Flour Mill was burned in 1877. It was a fine mill, and cost $40,000.

The Grangeville Flouring Mill was started by A. Tyner in 1874. It has a Hoadley engine that was used in the mountains to run a lumber-mill.

The Mines of Tulare County.

Little has been said of the mines in the mountains southeast of Visalia, sixty miles distant. This mining district is situated in the Sierra Nevada Mountains, upon the waters of the South Kaweah River, the head-waters of the little Kern River, big Kern River, Tule River, South King River, and North Kaweah River, in between the point and ridges that separate these fine streams of water.

The district proper extends over a system of interior mountain ranges, being east and west of the main Sierra entirely in the State of California. These undulating ranges are quite peculiar, one will raise quite abruptly from the slopes, run considerable distance, and sink again into an ordinary level, while another of still greater magnitude will rise sometimes nearly parallel, but more often at a moderate angle, overlapping the other at each end. The main course of the system of mountains runs in a southeast and northwest direction.

The highest peak of the Mineral King system is called "Half Potato Hill," and its estimated height is about 10,000 feet. The average of the town site above the level of the sea is from 6,000 to 7,000 feet. The mines are situated on the mountain-sides above the little town formerly called Beulah.

GEOLOGICAL FORMATIONS.

The formations are composed of successive formations of limestone, slate, quarzite, and granite. For quite a distance in ascending the cañon are encountered what geologists call a volcanic formation. After that the cañon cuts down into the bowels of a lime and calcareous slate formation, intermixed so in alternate stratification that it is difficult to determine which is the underlying rock. These two formations appear to be independent strata thrown together by some violent throes of nature in ages gone by. At the upper side of the mineral belt there is a very prominent backbone or ridge of what is commonly called granite. Geologists have erroneously named this formation of granite porphyry. This appears to have been the main upheaval when the convulsion took place which formed the mountain. The slate and lime strata which form the actual mineral belt are to the west of it, and appear to rest on the granite and pitch to the west of an angle of about 70°.

A number of cañons run nearly east and west through the valley, and cut and separate these formations at nearly right angles.

These cañons are all very deep and remarkably well supplied with water the entire year, intersecting the main ravine and certainly cutting into the foundations of main walls of the mountain ridges on the north and south sides. The two ridges which are intersected by the main ravine are about one mile apart. Numerous lodes of silver-bearing ores are met with in this district, of which argentiferous galenas are of the most frequent occurrence.

FIRST QUARTZ MILL ERECTED.

In 1878, Hon. Thos. Fowler embarked in the enterprise of mining. His perseverance and energy are worthy of public recognition. Fowler undertook the development of the Empire Mine that has proven so rich, and by his own means and that which his influence demanded through his own personal integrity invested nearly $150,000.

About 1875 this district was discovered, but not until 1879 had anything been systematically done to develop the immense wealth deposited in this rock-ribbed and gigantic range of mountains.

EMPIRE MINE.

At the head of a branch of Kaweah River is the Empire Mine. It is in a bold mountain which seems to be nearly an entire mass of mineral, as "pay rock" can be taken out at almost any place on it which is prospected for a few feet. About two-thirds of the way up the mountain is a natural shaft which descends somewhat over a hundred feet and opens into a vast cave. This cave was explored and was declared "to be lined, loaded, and filled with the richest kind of silver ore," with well-defined veins running north, south, east, and west, through which nature has run cross cuts and drifts. A party who visited it in 1881 descended into the cave by means of a windlass and rope, in the latter a stirrup for one foot to go into and the descent being through an aperture perfectly straight, but so narrow as to squeeze a large man. The cave was explored for several hundred yards horizontally and reached "a depth altogether of about 200 feet, with everywhere the strongest and richest evidences of beautiful silver ore."

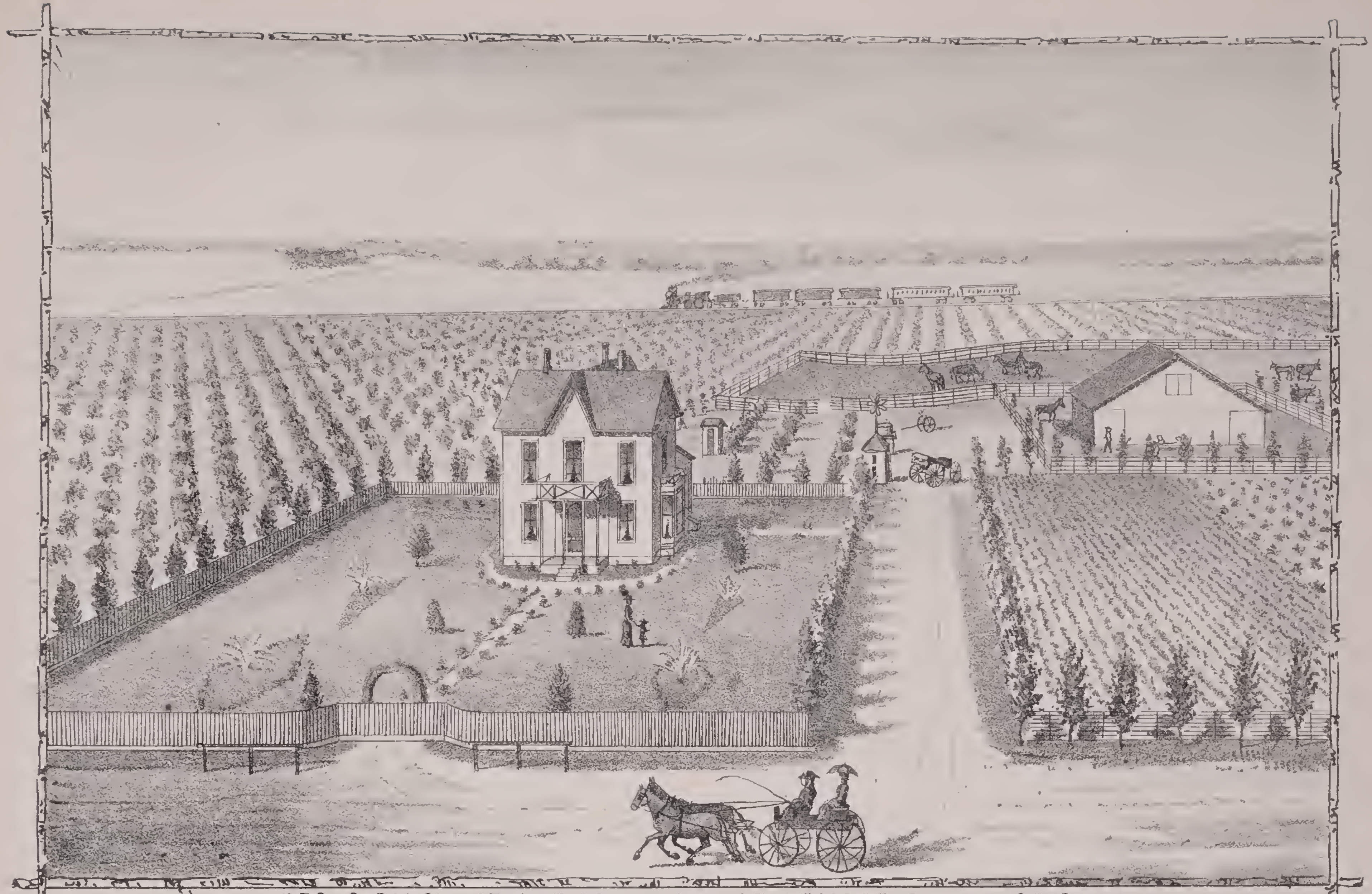
Mr. Fowler and his associates have spent a great deal of money in opening up the Empire Mine. The mine is really a cave mine, full of air chambers, which aid very much in developing it. They have gone down in one shaft 700 feet, in another 800 feet, and run 1,500 feet of tunnels. They have a fifteen-stamp mill. The ore yields from one-tenth to one-quarter gold.

The following mines have been prospected and worked to some extent, viz.: The Empire, Silver Lake, White Chief, Maginnis, Crystal, and Pinnacle. Ore has been taken out of the Silver Lake Mine paying $200 to $300 per ton. This district yields milling quartz ore and smelting rock, also. There are many ledges yet not developed.

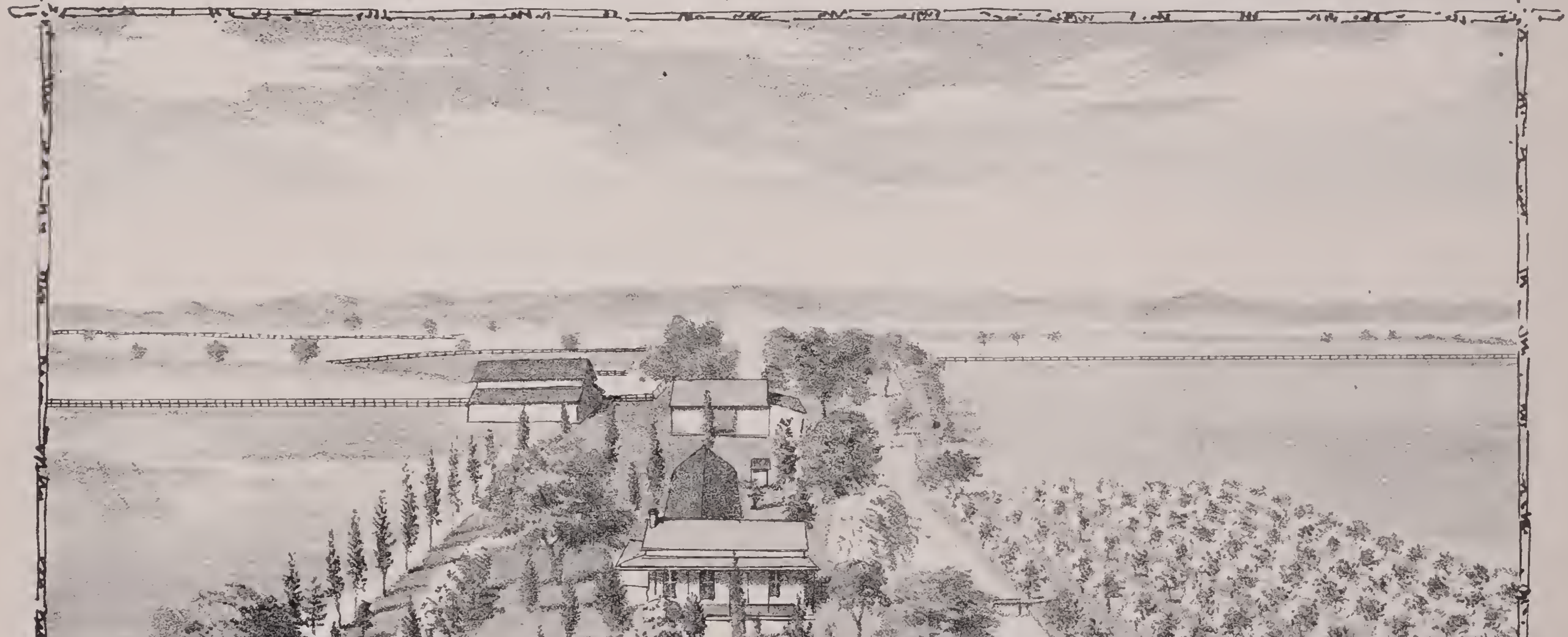
The town, or mining camp, of Mineral King contains about fifty houses, including the Empire Stamp and Reduction Works. At present, it is in a torpid condition.

WHITE RIVER MINES.

This mining district was discovered about the time of the



RES, & RANCH OF H. P. GRAY, EAST OF LEMORE, TULARE CO. CAL.



"EVERGREEN FARM," RES. OF DANIEL RHOADS, N.W. OF LEMOORE, TULARE CO. CAL.

rush to Kern River, in 1854, by miners who prospected the gulches and the river as they stopped here to camp. The mines attracted but little attention until the renowned Jack Gordon discovered rich diggings on a gulch that was named after him, and still is and always will be called Gordon's Gulch. Gordon after many hair-breadth escapes, a year's imprisonment among the Apaches, encounters with desperadoes, Indians, bears, and everything else, succumbed to the pressure of a double-barreled shot-gun in the hands of a cowardly little Polander, who shot him without provocation. But Jack, true to his nature, after he received his death shot, drew his pistol and when he discovered who his assailant was, raised himself up and, in the agony of death, shot his murderer and kept shooting until his eyes were glazed in death. The little Polander received two shots, but recovered. The encounter took place in L. Mitchel's store.

In 1855, there were several rich quartz veins discovered. One, known as the McCullough and Bullock claim, was worked for years, and the ore averaged over $100 per ton. This vein has been lying neglected now for more than twenty years. There are a great many quartz lodes that are abandoned, and will some day prove bonanzas.

This district is partly in Kern and partly in Tulare County, about twenty-five miles east of the Southern Pacific Railroad, and the nearest point on the railroad is Delano. The district embraces about fifteen miles square of mineral land. The climate is as good as can be found anywhere. There is very little agricultural land here, and about all the land is good for is sheep and cattle.

There is a little village at the junction of the main White River and south fork of the same, where there are two stores, hotel, school house, and several families. The town is owned by Mr. Levi Mitchel. He is truly the monarch of all he surveys. He has been there for many years, and is likely to stay much longer. The inhabitants of this place display a surprising emulation to see who can do the least, and they follow this up with great energy until they break down at it, and have to lay off to recuperate. Very little ever occurs here to break the monotony of every-day life, unless a stray copy of some newspaper gets blown in, or some one receives a last year's almanac around a pill box, which is carefully preserved to keep the run of the days of the week. Even then they sometimes get Sunday in the middle of the week, but that makes little difference.

The beds of the streams yield up monster bones and teeth of animals that inhabited this region thousands of years gone by. Williams has a tusk that he dug out of his claim on Grizzly Gulch over twelve feet long and larger than a man's body, besides some very large teeth. There is a grand field here for the geologist and mineralogist. There are more varieties of bugs (some of them as large as a bird) than in any other place in California—lizards, snakes, tarantulas, and other venomous reptiles too numerous to mention.

PROFITABLE MINES.

The Tailholt Mines on White River are now worked energetically and seem to pay well.

Deer Creek has its famous Delano mine—one of the best paying mines in the State.

In the vicinity of Tule has been discovered a mine, which will in the near future be a veritable bonanza to its owners. The mine in question is the one recently discovered by E. M. Bentley and S. Belden, and which they have named the Telephone. This mine is located on Middle Tule about one-half mile above the old Jordon trail leading to Owen's River, and about fifty miles distant from Visalia. Messrs. Bentley and Belden have a large force of men at work developing the property, and work is being rapidly and vigorously pushed. The vein is about five feet wide, but the quartz is rich in both gold and silver. Messrs. Bentley and Belden are both old and experienced miners, and have had large practice in mining.

So much attention has of late been given to irrigation, and the agricultural developments of the county, that the valuable mining industries have been neglected and nearly forgotten. There are some good paying mines that continue to attract attention. It is evident that before long the mines of Tulare County will be giving employment to thousands of men There are lots of good quartz mines in the Sierras that will soon be putting forth their golden treasures.

The mineral resources of the county are very great. The discovery of gold early brought the hardy miners to this region; but outside of the early placer, but little has been done to develop the great mineral wealth of the county, or determine the extent of the gold and silver quartz mines

THE SOUTHERN MINES.

The oldest interest in this section was mining, and to that was devoted the time, means, and energy, of the pioneers of the county. In the palmy days of '49 large deposits of free gold were found in the creek and river channels of the lower Sierras. These placers constituted a conspicuous portion of what was called the "Southern Mines," in contradistinction to the first discovered "diggings," located east and north of Sacramento. Years before the organization of the county the hills and lower mountains of the Sierras were alive with miners who, in many instances, "struck it rich" and amassed immense fortunes in a short time. Gold-dust was the medium of circulation, rather than coin, and the value of property was estimated in ounces of the pure metal, instead of in dollars and cents. Just how much actual wealth was thus extracted from the soil, by means of panning, sluicing, and rocking, we have no means of even approximating, but it would certainly be reckoned as millions.

Progress of Tulare County.

TULARE County was, in early days, the principal stock-raising county of California. But the adoption of the fence law induced the application of a system of irrigation to the arid plains where formerly very little vegetation grew; and the result is that almost with a single bound, the county takes a position foremost among the leading wheat-producing counties of the State. In threshing the wheat crop of 1882, more than thirty threshers were employed for an average of about seventy days. These turned out an estimated average of more than 800 sacks each, averaging 135 pounds to the sack. Thus about $5,000,000 worth of wheat, alone, was produced during the year.

The average annual precipitation of moisture for the valley may be reckoned at about ten inches per annum, while at an altitude of 9,000 feet it must be reckoned as high as thirty-five inches. There are numerous places in the county where orange and lemon trees have been cultivated successfully for the last twenty years, and it is highly probable that a thorough knowledge of the business would bring the cultivation of citrous fruit into prominence in the foot-hill region. The neglected red lands of the valley are best suited to the cultivation of the apricot.

There are several large districts where slate and marble abound, and several dykes of dolemite limestone can be traced nearly across the county. The climate of course varies with the altitude. Snow has not covered the valley more than three or four times in a quarter of a century; and the thermometer does not fall below twenty oftener than one winter in ten, except, indeed, where the atmosphere is rendered humid by excessive evaporation, as along the shores of Tulare Lake.

With less than one-twentieth of the soil of the county under cultivation, Tulare County produces the sustenance for a million of people; and when her resources become fully developed, she can feed and furnish employment to three times that number.

FINANCIAL CONDITION.

The finances of Tulare County were never in better condition than they are to-day. No department is behind, while the Hospital Fund has on hand a surplus of $3,000; and at the beginning of the fiscal year, the first of July, there will be a balance in the General Fund of from $8,000 to $10,000.

The affairs of the county have generally been carefully managed by all of its officers. Its record in that respect is equal to any.

Some thirty substantial bridges, reposing on piles of the most durable materials, span the streams at the different road crossings. These bridges are owned by the county and were constructed at an aggregate cost of more than $100,000. The county has one of the finest Court Houses in the State, fully described elsewhere. The following is the tax levy for the last five years: For the year 1878, State purposes, 55 cents; county, $1.86; total $2.41. For the year 1879, State, 62½ cents; county, $1.73½; total, $2.36. For the year 1880, State, 64 cents; county, $1.66; total, $2.30. For the year 1881, State, 65½ cents; county, $1.34½; total, $2.00. For the year 1882, State, 59.6 cents; county, $1.30.4; total, $1.90. This shows a gradual decrease in the county levy, while the State levy has been increasing slightly.

PROSPERITY AND WEALTH.

Year by year the Assessor's reports show a marked increase in the assessed valuation of all property. Nor is this to be wondered at, when we mark the strides made by mechanical invention in perfecting the tools with which the farmer works. But thirty years have elapsed since the Mexican fastened the crooked branch of a tree to the horns of his ox (by thongs) and therewith lightly scratched the bosom of Mother Earth; then laboriously dropped the seed. one by one, in the tiny furrows he had made. See illustrations of these tools on page 31.

IMPROVED AGRICULTURAL IMPLEMENTS.

Now, behold the mighty gang-plows, yoked to a score of snorting steeds and cutting a broad swath of brown mold across the green prairie, from horizon to horizon. Next the automatic seeder scatters the germs by millions; and where once was seen but the Mexican's tiny acre of scanty stalks, now waves a billowy ocean of yellow grain, far as the eye can reach. Not the slow sickle, or puny scythe must reap this harvest. The swift headers come, with waving wings and rattling blades, rejecting the treasured straw of the Eastern farmer, and daintily choosing only the golden heads. And last—no wooden flail with feeble beat, nor old-time fanning-mill, but the mighty steam separator, devouring heads by millions, and making immediate return in hundreds of tons of clean, bright grain.

Note also the wonderful increase of schools, churches, and all those institutions calculated to elevate and benefit mankind.

VALUATION OF PROPERTY.

We are indebted to Seth Smith, County Assessor, for the following statistics concerning Tulare County, as they appear on the Assessment Roll of 1882:—

Total value of real estate other than city and town lots, $4,071,175; total value of improvements on the same, $413,120.

Total value of town lots, $166,780; total value of improvements on the same, $301,680.

Total value of improvements on homestead and possessory claims, $75,860.

Total value of franchise, roadway, roadbed, rails, and rolling stock of railroads, $865,840.

Total value of real estate, and the improvements thereon, $5,905,880.

Total value of personal property, $2,094,596. Total value of all property, $8,000,476.

Total number of acres of land assessed, 1,166,579.

Total amount of bonds assessed, $10,491.

Total amount of money on hand assessed, $115,640.

Number of cattle assessed, 15,391; value of the same, $186,267.

Number of horses assessed, 9,999; value of the same, $314,719.

Number of hogs assessed, 20,451; value of the same, $41,114.

Number of mules assessed, 696; value of the same, $28,005.

Number of sheep assessed, 258,880; value of the same, $313,742.

Amount of Solvent Credits assessed, $128,452.

Number of wagons assessed, 2,666; value of the same, $128,878

Value of machinery assessed, $99,092.

Value of libraries, $3,905.

Value of sewing machines assessed, $13,096.

Value of watches assessed, $9,594.

Value of grain assessed, $327,111.

Value of furniture assessed, $45,066.

Value of musical instruments assessed, $15,291.

If the assessment of railroads had been the same as assessed by the State Board of Equalization for the year 1881, the assessment roll of 1882 would be $632,563 greater than it was for the year 1881. As it now stands the assessment roll is $159,483 over 1881.

PROGRESS OF FIFTEEN YEARS.

The following comparisons of a few items reported between 1867 and 1882 will show the increase during fifteen years:—

	1867.	1882.
Assessed value of real estate	$ 592,248	$4,071,175
Assessed value of railroads	......	864,840
Total assessed value of all property	5,171,872	8,000,476
Number of horses	7,685	9,999
Number of sheep	100,400	258,880
Number of hogs	18,651	20,451
Acres of land cultivated	6,310	115,240
Acres of wheat	3,236	76,430
Acres of land irrigated	100	25,000
Number of saw-mills	3	6

VISALIA TWENTY YEARS AGO.

In 1863 Charles M. Vallee was Postmaster at Visalia; W. N. Stuben, agent for Wells, Fargo & Co.; Rev. D. F. Dade, Principal of the Academy of the Nativity. The following is a directory of the principal business firms and persons at that time, the population being three hundred:—

Attorneys: A. J. Atwill, S. W. Beckham, S. C. Brown, J. W. Freeman, Robert C. Redd, S. A. Sheppard, W. M. Stafford.

Clergymen: D. F. Dade, R. C.; Thomas Chivers, M. E.; G. M. Edwards, M. E.

Physicians: Martin Baker, L. G. Lyon, H. L. Matthews, J. R. Riley, W. A. Russell, James M. Webb.

Books: Charles M. Vallee, A. M. Rogers.

Drugs: M. G. Davenport, Horace Morrell.

Hardware: C. C. Strong.

General merchandise: Solomon Sweet & Co., D. R. Douglas & Co., I. Levy, J. M. Browne, M. Reinstein, D. Wallack, William Byrd, John B. Hockett, E. Jacobs.

KEYSVILLE.—Postmaster, Myron E. Harmon; ninety miles southeast of Visalia; Attorney, J. W. Freeman; physician, Charles de la Borde; general merchandise, W. Marsh & Co., J. S. Rothschild & Son, Harman & Williams, Adam Hamilton & Co.

LYNN'S VALLEY.—Postmaster, H. Owens; sixty-two miles southeast of Visalia.

PETERSBURG.—Postmaster, H. A. Rindge; seventy-eight miles southeast of Visalia.

TULE RIVER.—Postmaster, James Harrer; thirty miles south of Visalia; clergyman, John McKelvy.

SAN CARLOS.—Post-office applied for; agent Owen's River Express, Edward Kenson; seventy-eight miles due east of Visalia; population three hundred; physician, H. L. Mathews; assayers, H. G. Hanks, O. L. Mathews; general merchandise, Hiram Ayers, Lenlett & Matthews, Loomis Bros., H. P. Garland; San Carlos Quartz Mill, S. E. Sayles, Superintendent.

WHITE RIVER.—Postmaster, John A. Keyes; fifty miles southeast of Visalia; general merchandise, Levy & Co.

District Court (Thirteenth Judicial District), Hon. J. M. Bondurant, Judge; sessions, fourth Monday in February, June, and October.

County Court, sessions first Monday in January, March May, July, September, and November.

Probate Court, sessions, see County Court.

Senator, Hon. J. W. Freeman, Visalia; Assemblyman, Hon. Joseph C. Brown, Visalia.

COUNTY OFFICERS.*

OFFICE.	NAME.	SALARY.	TERM EXPIRES.
County Judge	H. N. Carrol	$2,000	Jan., 1868
District Attorney	S. A. Sheppard	$1,000	March, 1866
County Clerk	J. T. Holmes	Fees	March, 1866
Recorder	T. J. Shackleford	Fees	March, 1866
Sheriff	John Gill	Fees	March, 1866
Treasurer	T. T. Hathaway	Fees	March, 1866
Assessor	E. H. Dumble	Fees	March, 1866
Surveyor	J. E. Scott	Fees	March, 1866
Coroner	William A. Russell	Fees	March, 1866
Supt. of Schools	M. S. Merrill	$250	March, 1866

SUPERVISORS.—First District, A. M. Donaldson, White River; Second District, R. K. Nichols, Woodville; Third District, Pleasant Byrd, Visalia.

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* All residents of Visalia.

Description of Towns and Villages.

TULARE CITY.

THE town site of Tulare City was surveyed, and the first sale of town lots was made at public auction in the latter part of 1872. A large depot, 240x40 feet, was built by the railroad company, who, even at that early date, recognized the fact that it would be needed in a few years.

There was but one house in this vicinity before the advent of the railroad, all this section being given up to stock-raising. After the terminus of the road was moved southward, and the construction force had left, the town did not make much headway for several years. An enumeration January 1, 1873, placed the total population at twenty. In two years it had raised to 145.

This place sprang into existence on account of the railroad, and is essentially what would be called a railroad town. The railroad caused the country to be more thickly settled, and this population demanded home markets. The town is the natural outgrowth of a demand on the part of the surrounding country, and therefore its permanence is established.

Tulare City was made the end of the San Joaquin Valley Division, and remained the terminus of the road from the time of the arrival of the first regular train, in July, 1872, until the following November. In the spring of 1873 the first engine-house was built, and contained stalls for seven locomotives. In 1875 the capacity of the building was enlarged to thirteen stalls, and extensive machine-shops were built the following year. In 1878 the company put in one of the largest and most substantial turn-tables on the coast. Many side-tracks have been laid, and all trains change engines at this point, going north or south. A large force of men are kept constantly at work in the repair shops, a division superintendent and a master mechanic are located here, and many of the hands employed by the company have their family residences here.

The round-house has thirteen stalls, and twenty-four engines work to and from this point, on the Tulare Division and the Goshen Branch. These shops employ twenty-four men. The blacksmith shops, steam hammers, spring forges, and copper shops are most perfect. The machine shop has thirteen lathes, planers and other machines; the boiler shops have rollers, shears, punches, etc.; the carpenter shop has burr saws, etc. Eight acres are inclosed and nicely ornamented with trees.

TULARE LIBRARY BUILDING.

In our views of this place will be found one of the beautiful and useful library building, erected by the liberality of the railroad company. The company has also provided an extensive library, or reading-room, billiard hall, etc., for the convenience of its employees when not on duty. The building, as will be noticed in the view, is of handsome design, and is one of the attractions of the village. It would be an ornament to any place.

At the annual meeting of the Tulare Library Association held July 2, 1883, for the election of officers, the following were elected: S. Johnson, President; C. F. Hall, Vice-President; H. Congdon, Secretary; H. H. Francisco, Treasurer; C. M. Fisher, Collector; J. U. Bennett, Superintendent; J. C. Richards, J. S. Williams and T. A. Lewis, Directors. For the fiscal year ending July 1, 1883, the total receipts were $982.89; expenditures, $782.95; leaving a net balance on hand of $139.-94.

Tulare is situated on the main line of the Southern Pacific Railroad, about 167 miles south of Stockton, 251 miles from San Francisco, and 231 miles from Los Angeles. It is the end of two divisions—Tulare Division, extending to the south, and Visalia Division, to the north. Elevation above sea-level, 282 feet.

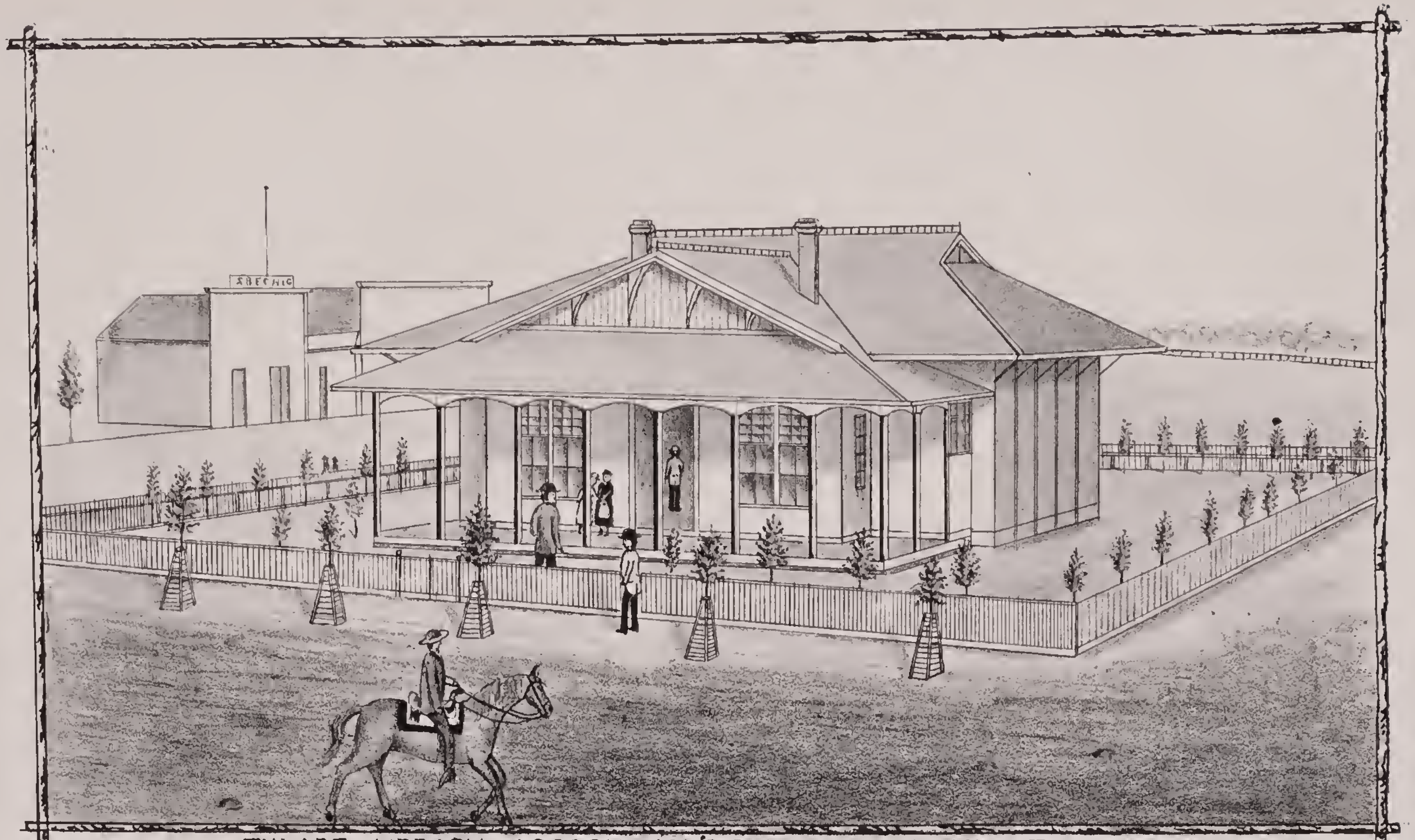
On the 5th of July, 1875, a disastrous fire occurred, destroying the business portion of the town; but the place continued to grow, and, notwithstanding a drought in 1877–78, and partial failure of crops last year, the population cannot now be less than 1,200. During the year ending May 31, 1883, no less than ninety houses were completed.

Great pains have been taken to set out ornamental and shade trees, so that some of the streets are almost embowered in shade from one end to the other, and others will be as soon as the trees are a little older. Some of the residences are handsome, and most of them are neat and homelike. Among the numerous neat and tasty dwellings, we give illustrations of a few of the better ones, such as those of A. T. Cotton, A. D. Neff, E. J. Edwards, L. A. Pratt, Seymour Johnson, etc. Taken as a whole, Tulare City will compare favorably with most towns of its size in this or any other county.

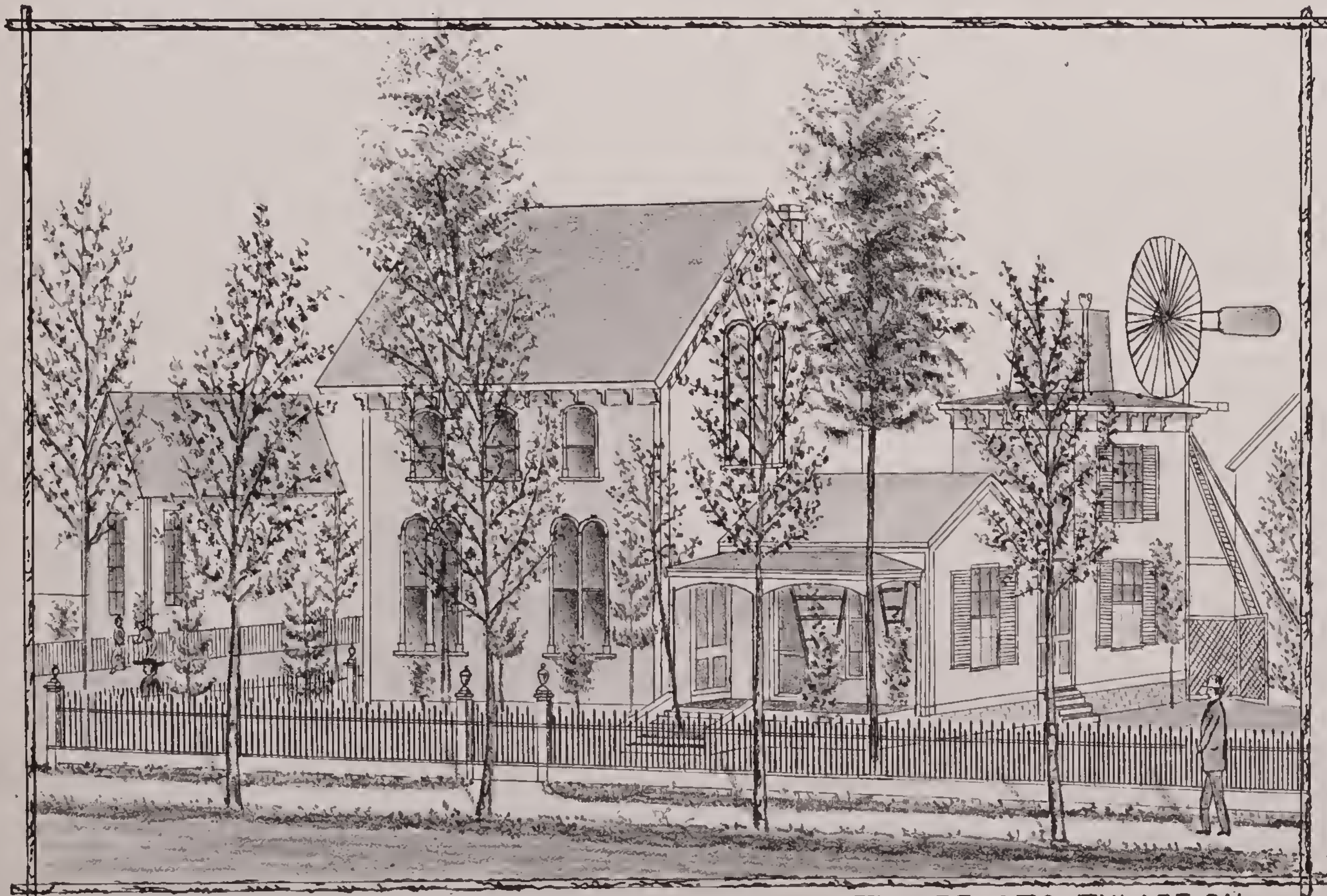
BUSINESS HOUSES.

Among the prominent features of the town we may mention a full complement of general merchandise, hardware, provision and grocery stores, two good hotels, besides private boarding-houses, one first-class restaurant, two livery stables, two drug and variety stores, post, express, and telegraph offices, bakery, millinery, fruit, tobacco, and notion stores in profusion, city water-works, carriage and wagon factory, blacksmith, wheelwright, and paint shops, undertaking establishments, baths, saloons, meat and vegetable markets, real estate and insurance agents, physicians, a dentist, one legal firm, artificial stone and concrete-pipe factory, tin-shops, harness and saddlery store, and a shoemaker. Among the most prominent of these we may mention—

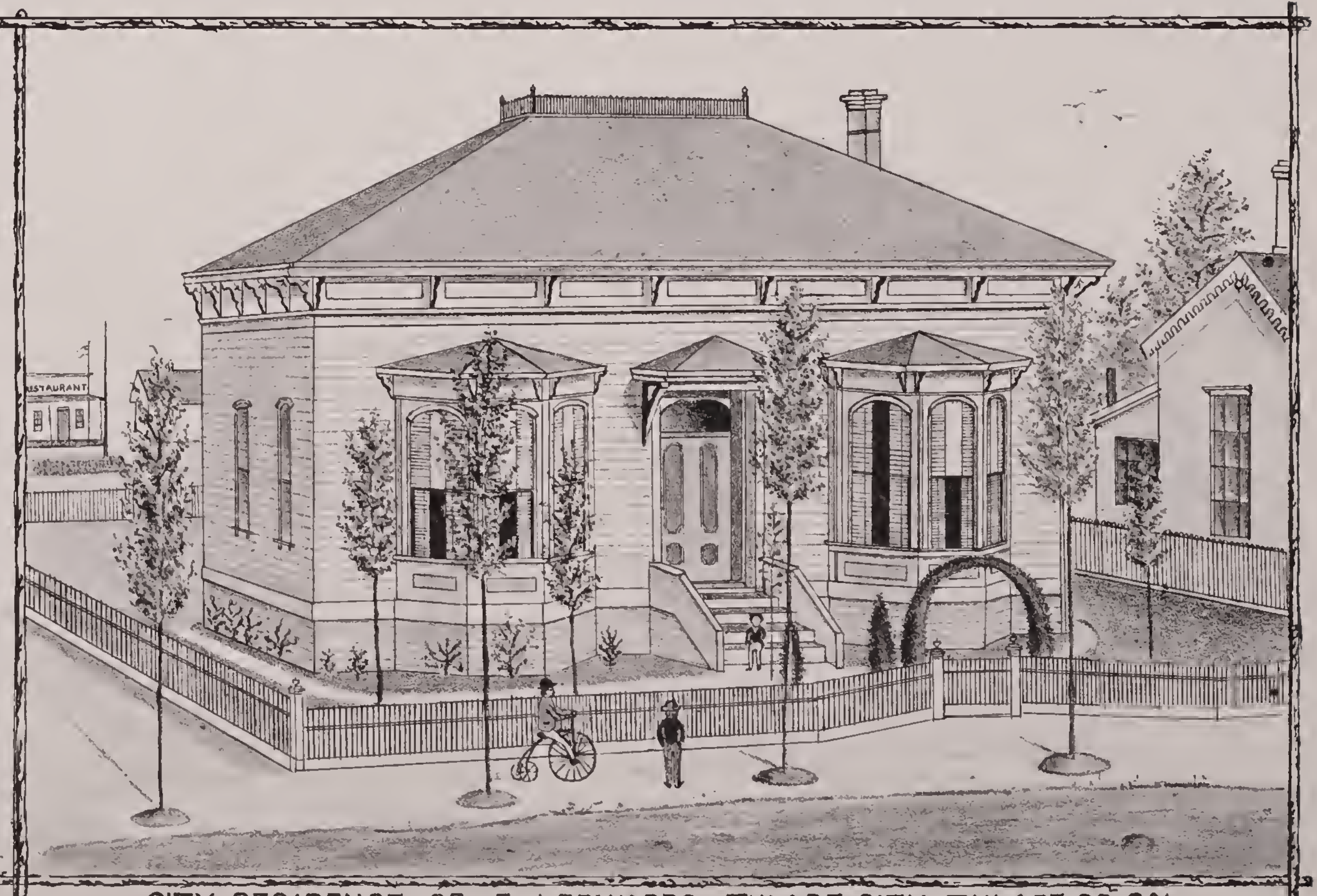
L. A. PRATT, undertaker, contractor, and builder. Has been established in business since the location of the town, and is



TULARE LIBRARY ASSOCIATION'S BUILDING. TULARE CITY CAL.



RESIDENCE OF SEYMOUR JOHNSON. COR. H & TULARE STS. TULARE CAL.



CITY RESIDENCE OF E. J EDWARDS. TULARE CITY. TULARE CO. CAL.

not only the pioneer undertaker of Tulare, but also is recognized as carrying as large a stock as can be found in the county.

Mr. Pratt is a man of good judgment, and enterprising, as is shown in the contribution of his elegant residence to our list of illustrations, to aid in showing the improvements of Tulare City. He is well and favorably known throughout this coast, and has contributed largely to aid in its development.

GEORGE G. BUCKLAND manufactures buggies, buckboards, phaeton carriages, wagons, and agricultural implements. He also makes the Buckland Patent Buckboard-gear, and parts of the same for the trade. He has invented and manufactured three kinds of sectional harrows. He has a good brick shop.

DEWITT & RICHARDSON deal in real estate, and are well posted on all lands in Tulare County, and especially those about Tulare City and the artesian belt. Large and small ranches bought and sold in Tulare, Fresno, and Kern Counties. Fruit lands a specialty.

POST-OFFICE DRUG STORE.—The chief drug store of Tulare is kept by Brooks Key, who deals in all kinds of drugs, medicines, toilet articles, perfumery, etc. Physicians' prescriptions accurately compounded night and day.

TULARE CITY WATER WORKS were started in 1882 by D. W. Madden. He sank an artesian well and from the water pumped up he is supplying the place. The pipes are now laid in all directions, some 8,000 feet in all, and the storage capacity of the tanks, which are arranged one above the other, and are some sixty feet in height, is 40,000 gallons. (See illustration.)

PACIFIC HOTEL is the leading one of the town, with D. W. Madden as landlord. The Pacific was started by Sawyer & Baalam, of Sacramento, and afterwards sold to John F. Jordon, present Auditor of the county, and rented to various parties. But success never attended it until it came into D. W. Madden's charge, who after purchase made many additions and improvements. He has done much to promote the growth of the town and is genial, frank, and liberal.

NEWSPAPERS OF TULARE CITY.

There are three newspapers issued in Tulare City. The *Tulare Register* was started by Messrs. Black & Cox, December, 1882, and transferred to the present management on the 24th of February last. Its career has been one of uninterrupted progress from its very inception. It is now published by Messrs. Shanklin & Pillsbury. Each issue contains some important information about the county. We have used in this work valuable matter taken from their columns which are always replete with local news.

The *Alliance Messenger* is issued weekly, and is owned by a joint-stock company, and is devoted to morality, temperance, and Christianity. Rev. F. H. Wales is the managing editor, and has contributed much to the success and popularity of the enterprise. The Tulare County Christian and Temperance Alliance, composed of various church and temperance organizations, contribute to its maintenance. The *Alliance Messenger* is published every Thursday evening by the Alliance Messenger Publishing Co., under the auspices of the following Board of Directors: F. H. Wales, President, Tulare; J. M. Moore, Secretary, Hanford; John Reed, Treasurer, Hanford; S. Fowler, Tulare; J. B. Zumwalt, Tulare; A. W. DeWitt, Tulare.

The *Tulare Telegraph* was started by J. A. Studabecker, in 1882. It was issued as a daily. It has changed hands once or twice but is now still under the first managment.

D. W. MADDEN, a view of whose hotel and water-works appear in this work, is a native of Pennsylvania, having been born in Montour County, in 1825. In 1844 he left Pennsylvania, with but $18.00 in his pocket, and walked to Michigan, then known as the far West. Here he remained about a year, and then went on to Illinois, where he taught school for two years.

In 1852 he left for California, coming overland, making the trip in six months, and took up his residence in Sacramento, where he followed stage driving, and was afterwards agent for the stage company of Sacramento. He remained there till 1860, when he went to Placer County, and kept hotel for twelve years. He then moved to Hollister, San Benito County, remaining there two years, and in 1875 he removed to Tulare County and engaged in farming and sheep-raising. In 1876 he took up his residence in Tulare City, where he has since resided. In 1877 he bought the hotel which he now occupies, and has made large additions thereto.

It is always instructive to read of the trials as well as successes and failures of other people. He came to this county, and was in the employ of Sisson, Wallace & Co., in charge of lumber-yard. He afterwards took charge of the Lake House, which burned soon after. Mr. Madden is one of the best citizens of Tulare, active and energetic.

He was married to Miss Nancy E. Carnhan, a native of Pennsylvania, in December, 1859. They have one boy and three girls, Lillia E., Maggie E., Mary M., and Washington D. Madden.

TULARE LODGE, NO. 68, K. OF P.

This order has for its object to disseminate principles of friendship, charity, and benevolence. It was organized at Tulare City, February 11, 1882. Its greatest membership is sixty-five.

The following is the names of officers for July, 1883: D. S. Woodruff, C. C.; G. Q. Gill, V. C.; John Farrar Sen., Prelate; L. A. Pratt, M. A.; Geo. Buckland. K. of R. and S.; D. McDonald, M. of E.; T. Rudolph, I. G.; and J. Richardson, O.

BROTHERHOOD OF LOCOMOTIVE ENGINEERS.

This is a society known as Tehachepi Division, No. 125, whose objects and aims are to elevate men who are in the profession of locomotive engines and to aid and assist widows and orphans of deceased members. The order originated at Detroit, Michigan, in 1863, as brotherhood of the Foot Board and this order was organized August 17, 1864, as B. of L. E.

The first officers of Tulare Division were A. D. Neff, C. E.; D. T. Bolger, F. E.; C. E. Wiekstrom, S. E.; D. C. Horton, F. A. E.; Marion Patchen, S. A. E.; W. R. Hatfield, Guide; and Joseph Paine, Chaplain. The greatest number of members at any time was twenty-eight. About $1,800 have been distributed in charities and benefits.

The present officers are: J. L. Bachelder, C. E.; E. J. Edwards, S. E.; W. H. Main, S. A. E.; W. W. Wright, Guide; J. C. Richards, F. E.; R. S. Goble, F. A. E.; W. W. Achorn, T. A. E.; A. D. Neff, Chaplain.

The charter members were: Samuel Richardson, A. T. Fowler, W. M. Richardson, H. Kelsey, J. Lemprand, F. Heild, C. B. Faust, G. A. W. Faust, J. R. Faust, D. McDonald, Jesse Richardson, H. G. Rogers, J. Bargion, E. H. Holland, L. A. Pratt, John Reid, Caleb Coakley, Thos. Helm, T. M. Thomas, L. D. Murphy, P. L. Anthony, W. M. Bruce, W. Adams, J. H. Faust.

OLIVE BRANCH LODGE, U. D., F. A. M., was organized March 9, 1883. Its first or charter members were: L. D. Murphy, J. A. Goble, L. Gilroy, F. T. Berry, Robt. McMillen, R. C. Clarke, Thos. Cross, B. W. Jauchius, Wm. Carpenter, F. W. Gorham, Geo. Faust, J. C. Gist, B. M. Alford, J. F. Uhlhorn, T. W. Maples.

The present officers are: L. D. Murphy, Master; J. A. Goble, Senior Warden; L. Gilroy, Junior Warden; F. T. Berry, Secretary; J. F. Uhlhorn, Treasurer. The greatest number of members at any one time was twenty-seven. Regular stated meetings of this lodge are held on the second Friday of each month.

TULARE COUNCIL, NO. 89, ORDER OF CHOSEN FRIENDS, meets every Wednesday evening at 9 o'clock. This order was instituted July, 1882, with thirty-six charter members, and is in good condition.

TULARE LODGE, NO. 78, A. O. U. W., installed new officers as follows: C. F. Hall, P. M.; E. T. Bucknam, M. W.; T. A. Lewis, Foreman; Jas. Doyle, Overseer; John O'Kief, Guide; Mr. Treadwell, Recorder, and J. L. Barnes, Financier.

TULARE LODGE, NO. 195, I. O. G. T., meets every Tuesday evening at 7 o'clock, P. M., in Masonic Hall. S. West, W. C. T., J. H. Morton, W. S.

TULARE CITY LODGE OF ODD FELLOWS was instituted in May, 1883, by C. H. Murphy, of Visalia. J. S. Barnes Noble Grand; F. Rosenthal, Vice Grand; E. M. Wilson, Secretary, and E. Churchill, Treasurer.

A. T. COTTON, who has one of the best residences in Tulare City, and represented among our views, was born in Will County, Illinois, in 1849. When but five years of age his parents started for the land of gold. Fitting themselves out with an ox-team and wagon, in which they placed their household treasures, they bid good-bye to old associations, and joined a train bound overland. The long and weary trip occupied six months, and just after they reached the line of the State, in Lake Valley, the father sickened and died. This occurred in the fall of 1854, when the family moved into, and settled in Sacramento County.

The most of young Cotton's time was spent in Sacramento County, until 1871, although he spent some time in El Dorado County during 1857 and 1858. Attended school in Alameda in 1859–60. Resided in Placerville in 1860–61. Went to New York in 1865, and spent one year. In 1871 he moved to Tulare County, and engaged in well-boring. In 1873 he opened a tin-shop in Tulare City, to which he has since added stoves and hardware and house-furnishing goods, and is doing a good business.

In 1869 he married Miss Josephine Gregory, a native of California. They have three children, Willie, Fred, and Daisy Cotton.

FINE RESIDENCES.

Tulare City is surrounded by many good farm places, and on these are well-arranged and comfortable homes, yet even the most enthusiastic admirer of Tulare County must admit that few of her farm-houses can make any pretensions to elegance. There are some very neat ones and many that are commodious and comfortable, but few of the old settlers are so proud as to make it necessary that their dwellings shall be painted in order that they may live happily in them.

J. B. ZUMWALT has the finest country residence in the county. This house and immediate surroundings makes the largest of our illustrations. The main building is 36x40 feet two stories high, with a hip roof and deck. It has eight large and airy rooms with lofty ceilings, four of them above and four below. The hall-ways are broad and the stairs have a very gradual and easy rise. This building is entirely surrounded by double porches, that protect it from the direct rays of the sun. Immediately in the rear of the main building and connected with it by the porch is an L 20x40 feet, one story high, containing a dining-room, kitchen, pantry, and bath-room. This building also is entirely surrounded by a broad porch. Good porches, and plenty of them, are indispensable to comfort anywhere in the interior of California where the sun comes down with so much force during the summer. Mr. Zumwalt's porches added $2,000 to the cost of his residence. The whole structure bears unmistakable evidence of good material, skillful workmanship, and painstaking thoroughness in every detail.

J. B. Zumwalt was born in St. Charles, Missouri, July 11, 1832. His parents died when he was five years of age, at which time he went to live with an uncle in Palmyra, Missouri, who treated him with so much severity that he ran away. But the county afterwards appointed a guardian for him, who taught him the blacksmith trade, but who was afterwards killed by lightning.

Mr. Zumwalt then went to Paris, Missouri, and remained two years with Mr. Enoch Wilson, until gold was discovered in California, when Dr. H. J. Glenn (recently murdered) of Colusa, and others, left Paris for gold mines. It was soon reported that they had made fortunes in the mines. Everybody else was crazy to go to California.

He was fitted out by J. C. Fox, a wealthy merchant of Paris, which place they left April 9, 1850, in company with Henry Davis, Mr. Wilson, and others, with ox-teams. They made the trip in about four months. At Carson City he and another young man left the train and walked the balance of the way, arriving, as miners say, "dead broke." He stopped first at Hangtown, Placerville, and engaged in blacksmithing, and mining. He continued mining at Gold Hill and other places in El Dorado County until 1855. He afterwards mined in Shasta County with fair success. He stayed in Shasta until 1857, when he took a trip east for six months.

In 1858 he left the mines and opened a blacksmith shop in Red Bluff until 1864, when he removed to Grand Island, Colusa County, where he bought land at $1.25 per acre. He farmed there for fourteen years. He then sold this farm at $50.00 per acre and removed to his Tulare farm. He came to this county in 1878 and engaged in farming and stock-raising.

His farm consists of 1,000 acres of rich sandy loam adapted to small grain, alfalfa, and fruit. It is located seven miles from the county seat, and near school and church. The Southern Pacific Railroad runs through the farm.

He has a small orchard, young, but it is doing well and some of the trees have made a remarkable growth. "We were shown," says the *Register*, "a seedling tree two years old that has a trunk three inches in diameter, and a top ten feet square, that is full of fruit. Twelve months from the day this tree came up through the ground it was in blossom, and bore fruit that season. We were also shown some Carolina poplars two years old that were grown from cuttings, that now measure from twenty to twenty-six inches in circumference." He keeps on the ranch about 80 head of cattle, 150 hogs, and 22 horses.

He married, in 1860, Miss Lydia A. De Witt, who was a native of Kentucky. They have five boys and five girls.

Mr. Zumwalt is one of the most active citizens of Tulare County, and cheerfully aids every enterprise calculated to advance the interests of his county. He has been engaged in the real estate business, and is familiar with the quality and location of the lands of Tulare County and surroundings.

VISALIA, the county seat, is situated in an exceedingly fertile region, and is the terminus of a branch railroad which connects with Central Pacific Railroad at Goshen seven miles away.

Samuel Allen informs us that when he came to Tulare in 1854, there was one store in Visalia kept by Nathan Baker; one blacksmith shop by a man by the name of Turner; a boarding-house by John P. Majors; and one saloon, the keeper's name not remembered. At that time there was no Court House or jail. The court was held in a building that was also used as a jail.

At that time there was a corral or pen used as a fort, made of timber nine feet long set in the ground. Inside of this there were several cabins. The Indians were a little troublesome at times so the people had to take to those places occasionally for safety.

He says "at times the few that were there at that time, were obliged to live for weeks on grain ground in hand-mills or large coffee mills, using it without bolting.

"About 1854, two grist mills were erected, one by Phil. Wagy, and another by Dr. Mathews & Bros. At this time it would have been utterly impossible to have built a railroad where it now runs. The canal dug from Tulare Lake to Fresno Slough has lowered the lake so that it has receded as much as ten and fifteen miles and made good farming land, where at that date the fish were swimming."

As early as 1860, Visalia was quite a village, and during '63 and '64 United States troops were stationed there. During the latter part of the war the place became quite important both as a military station and as a freighting point from Stockton. It is situated in the northern part of the county, in a heavily timbered section. The country surrounding is very level, and all the clear land is devoted to farming, pasture, etc. A considerable portion of the country to the east is swampy, but can be successfully drained, and consists of some of the best land in the county.

BUSINESS PLACES OF VISALIA.

Visalia has gas and water-works which supply the people with gas for illumination, and water for irrigation and domestic purposes. Visalia has three hotels, three restaurants, nine stores, five variety and boot stores, two saddle and harness shops, six blacksmith and wagon shops, five livery and feed stables, two jewelers, three barber shops, three vegetable and produce stores, two tin and stove stores, one furnitnre store, ten attorneys, nine physicians and about two dozen saloons.

There are five church edifices and seven organizations. A lodge of Masons, Odd Fellows, Good Templars, and a literary club. There is a good normal school in Visalia. The Masonic and Odd Fellow's Hall building cost $20,000. The Good Templar's Hall $6,000. There is one general banking-house, and a Government Land Office here, and the county Court House and jail, with many substantial residences.

The place is well laid out, but poorly built; the buildings generally, especially in the business portion of town, are low and uncomely structures; yet there are some pretty private residences and good business houses recently put up.

A fine Court House has been erected at a cost of $75,000. It is a splendid structure, a pride to the county and an ornament to the town, and is fully described elsewhere.

The Bank of Visalia has a paid up capital of $200,000 and does a large business; R. E. Hyde, President, and J. J. Mack, Cashier. It was organized about 1875, and has been under the same judicious management as at present since starting. The building they do business in is a handsome brick, on Main Street, and is 70 feet by 20. The Tulare Flouring Mill runs three burrs and makes fifty barrels of flour and grinds forty tons of feed in twelve hours—runs by water or steam. The flour has a wide reputation.

This city has a large, good public school building, occupied by six teachers. The Visalia Normal School was organized in 1880. The first year it numbered 64 pupils, the second 99, the third 104. The aim of the institution is to qualify students for the practical duties of life, as well as for the teacher's profession.

By a branch railroad to Goshen, regular connection is made with the trains running north and south on the San Joaquin Valley Railroad. Mr. R. E. Hyde, one of Visalia's live men, formerly a merchant, is President of this railroad.

The city is supplied with gas and water. The water-works were erected by Messrs. Fox & Wild, as builders. The dimensions of the building are: At the base twenty-six feet square, and at the top where the tank rests, it is twenty-two. The tank holds about 30,000 gallons, and is kept full of water by means of a steam engine of twenty horse-power.

STEVENS & CO., have a store which is a very large institution, carrying everything in the dry goods, grocery, crockery, and clothing line, with boots and shoes, hats and caps, farming and mining implements. They are sole agents for the Schuttler & Fish Bros. wagons. It is a credit to any city to have so fine a store building and so large a stock of goods to select from.

The site of Visalia is in the midst of a broad and fertile plain, with Tulare Lake twenty miles to the westward, and the foothills of the Sierra as many to the eastward, the entire valley at this point being about seventy miles in width. The section was formerly known as "Four Creek Country," which from its beauty and fertility attracted a large population at an early day, and long before the advent of the iron horse. The San Joaquin Valley branch of the Central Pacific Railroad lies westward of the town about seven miles distant, and a branch runs to Visalia, thus giving direct railroad communication. Stages connect it with the surrounding towns. Mill Creek, a rapid stream part of the year, runs through the town. Groves of evergreen and deciduous oaks cover the plains, giving a pleasant feature to the scenery. A few miles south the oaks give way, and the wild open prairie stretches for miles around.

Visalia is an incorporated city. S. C. Brown is Mayor, and G. A. Botsford, Clerk; E. J. Fudge, Marshall; J. T. Brown, Assessor; W. W. Coughran, Treasurer; W. B. Wallace, Recorder; W. F. Thomas, Superintendent of Schools.

NEWSPAPERS OF VISALIA.

The *Tulare Weekly Times* was established in 1864, and has been issued regularly ever since. In 1876 the *Daily Times* was started by Matlick & Britz, but was discontinued after a while. It was again issued in August, 1882.

The *Weekly Times* is now published by R. F. Eagle as editor and proprietor, who has lately come into possession of the office. He is now making the paper better than under any previous management.

The *Weekly Visalia Delta* is in its 26th volume and issued by F. J. Walker & Co. It is doing much to interest people in the resources and capabilities of Tulare County. It gives close attention to local county matters, and therefore furnishes a paper indispensable to those interested in local affairs.

The *Journal* is also published here. It was started in Hanford, as related elsewhere, and moved to Visalia.

HANFORD is the third town in size in the county, and only a few years old. It is situated in the center of the Mussel Slough country, more particularly described elsewhere. It is fourteen miles from Goshen, on the branch railroad designed to connect with the railroad at Hollister. It is one of the most thrifty towns in this section of the San Joaquin Valley. It is surrounded by one of the finest and most productive agricultural neighborhoods in the State. It contains about six hundred population. It is well supplied with schools, and has four churches; Cumberland Presbyterian, Methodist Episcopal, Catholic, and Episcopal, a good flour-mill, city water-works, ten stores including general merchandise, hardware and furniture, two drug stores, four hotels and boarding-houses, six grain warehouses with a storage capacity of over 10,000 tons livery stables, saloons, and miscellaneous shops and stalls.

THE WATER-WORKS.

One of the most important general improvements is the Hanford Water-Works. Messrs. Robinson & Rawlins, among Hanford's most enterprising citizens, had this institution completed in first-class style in every respect, at an entire cost of at least $10,000 besides pipe.

The mains and the smaller iron pipes are conveyed to every part of town, and there are many large and small hydrants conveniently distributed and furnished with sufficient hose to be a very great protection to the town in case of fires. The handsome and well-utilized structure of their tank house is sixty-five feet in height to the top of the roof over the tank, and sixty feet to the top of the tank itself. Such is the pressure from this height that the hose, distributed throughout the town, throws water to a height of thirty-five feet, and hence would reach the third story of buildings.

A good view of Hanford and the surrounding country is obtained from a neat balcony around the fourth story of the tank house, at a height of forty-five feet. The snowy Sierra and the Coast Range make a fine background east and west, and the well tilled, well irrigated fields and numerous ranches in every direction, show plainly in this picturesque view why so many residents and visitors of the Mussel Slough country think it is truly one of the finest garden spots in California. Our artist has sketched the Sierras as they appear from Hanford for a length of 120 miles, and we have had it engraved.

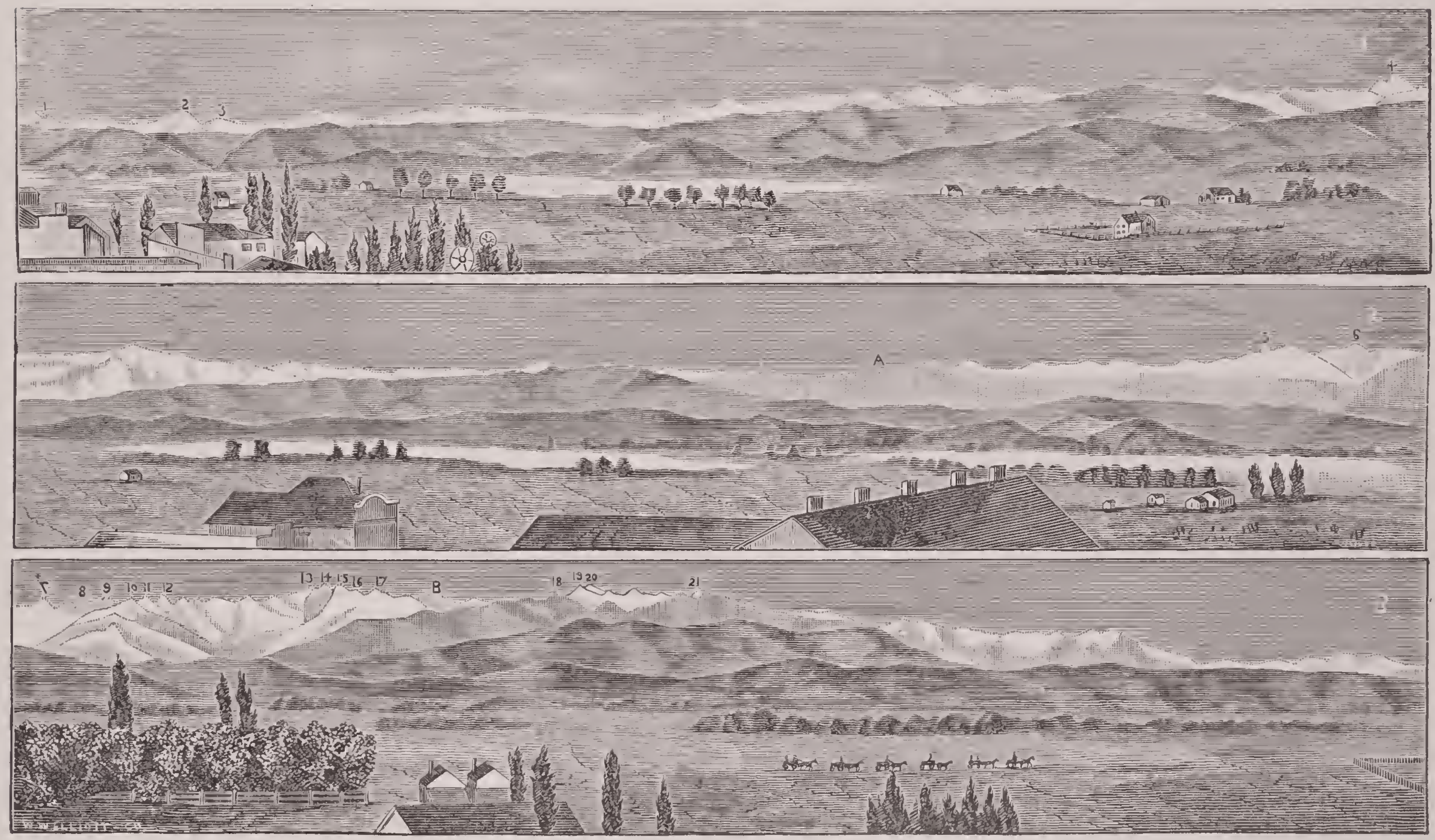
The Methodist Episcopal church was dedicated at Hanford, in July, 1881. It is a tastefully furnished building and has a bell with a very clear tone. The ministers who officiated at the dedication were the Pastor, Rev. J. R. Gregory; Rev. A. Bland, Presiding Elder; Rev. J. B. Calloway, pastor at Grangeville; Rev. John McKelvy, from Bakersfield; and Prof. F. D. Bovard, of the University of Southern California. The latter preached the dedicatory sermon.

The Cumberland Presbyterian church is a frame building, in half Gothic style, well finished and painted inside and out. The ground plan is 50x36 feet. Its height from ground to comb of roof is thirty-six feet, to top of the belfry about fifty feet. It has a clear sounding 600-pound bell. This really handsome building, an ornament to any town, was erected at a cost of $3,500, which is $1,500, less than a contractor would have built it for. The entire membership is about 100, seattered over a territory ten miles square. The Rev. Warren Compton was the first pastor from 1876 to 1879.

The Catholic and Episcopal Churches have flourishing societies and churches. There are also numerous secret and benevolent societies, all of which are in a very flourishing condition.

I. O. O. F. LODGE, No. 264, was instituted in Aug., 1877, by B. Baer, D. D. G. M., assisted by Past Grands T. Lindsey, J. B. O'Connor, A. Weishar, J. M. Graves, G. Herring, N. G., and A. F. Switzer, V. G., of Four Creeks Lodge, with a charter membership of ten, all well-known citizens of this county. The officers installed were: J. C. Goar, N. G.; J. N. Camp, V. G.; A. B. Crowell, Sec.; D. B. Thinker, Treas.

McPHERSON POST, No. 51, has thirty members, and is in a flourishing condition. The following are the officers: Post Commander, H. F. Peacock; Vice-Commander, C. M. Bryant; Officer of the Guard, Albert Hayes.



THE SIERRAS AS SEEN FROM HANFORD, TULARE COUNTY; 120 MILES IN THREE SECTIONS.

1. Mt. Lyell. 2. Mt. Ritter. 3. Mt. Goddard. 4. Mt. Silliman. 5. Mt. Gardiner. 6. Mt. Brewer. 7. Mt. Tyndall. 8. Mt. Williamson. 9. Hazen. 10. Mt. Michaelis. 11. Milestone Mountain. 12. Mt. Langley. 13. Location of Mt. Whitney. 14. Mt. Albert. 15. Mt. Henry. 16. Mt. Le Conte. 17. Mt. Kaweah. 18. Empire Mountain. 19. Miner's Peak. 20. Mt. Garfield. 21. Bullion Peak.

ANNUAL COMMEMORATION.

The 11th of May is now observed here as an annual commemoration of the fatal Mussel Slough tragedy. The procession of May, 1883, after marching to the cemetery at Grangeville, and performing the melancholy task of decorating the graves of those whose bodies rest there, who lost their lives on that memorable day, re-formed in a line half a mile in length, and marched to the Hanford Cemetery, where they performed the same sad duty. Thence they proceeded to the Hanford Park, where the exercises of the day commenced by the election of Rev. N. W. Motheral, President of the day, and J. W. Harris, Marshal. The President, with a few appropriate remarks, introduced the orator of the day, P. S. Dorney, of Sacramento.

The Hanford *Journal* was started in this place, but afterwards removed to Visalia, where it is now published successfully. It was issued by Milton McWorter, July, 1881.

George Thyarks erected a fine brick building, which is leased to occupants. It is one of the neat and substantial business buildings of the place.

The Freeman House was opened in 1877 by H. H. Freeman. It is favorably situated for entertaining a large number of guests.

R. Mills has a place of resort that has few superiors on the coast. This saloon is fitted up in an elegant manner, as will be seen by the engraving on another page, of the interior of this fashionable resort. Mr. Mills has made a successful effort to have his place inviting and attractive, as well as orderly. The walls are ornamented with fine views and paintings. The counters and fixtures are of the most finished style, and the bar has every accessory of a first-class saloon.

A LARGE MERCANTILE FIRM.

Simon, Jacobs & Co. are an old and reliable firm. These gentlemen have been engaged in merchandising for the last thirty years, and can boast of constituting one of the oldest firms in lower or southern California. The partners are: Samuel Simon, of San Francisco; James Manasse; and Nathan Weisbaum, the latter two of Hanford, Tulare County, California.

This firm commenced business in Hanford in the spring of 1877, being the first parties who had the courage to open a store in the place. Their establishment is justly named "The Pioneer Store," under which name it is known throughout the Mussel Slough District. At first they transacted business in a one-story frame building, with Mr. Manasse as manager, he also being at that time (1877) appointed Postmaster of the United States Post-office, which then was opened for the first time in their store.

As a flourishing business always indicates prosperity of the surrounding country, we may safely congratulate the people of Hanford and Tulare County of theirs; for during the four years, from 1877 to 1881, the business of the firm had increased in such a manner that it was obliged to build the fine brick store, 80x30 feet, represented in our illustrations. They also erected a warehouse in the rear of this store 50x30 feet. They conduct the agency of Wells, Fargo & Co.'s Express.

Besides their general merchandise establishment, Messrs. S., J. & Co. own a grain warehouse, which is 100 feet long and fifty feet wide.

The handsome residence of James Manasse is among the views of Hanford represented in our history.

J. H. Melone deals in dry goods and general merchandise as well as groceries. This is a comparatively new house, but they carry a large stock, and by fair dealing are securing an increasing trade, and their business is constantly improving.

J. T. Baker has one of the most complete drug stores in this section. He keeps an extensive assortment of drugs and medicines, chemicals, paints, oils, and varnishes, glass, putty, etc., pure wines and liquors for medical use, and dye woods and dye stuffs generally.

Brown & Irwin, attorneys-at-law, and notaries public, are located in Hanford, and have an office one door west of Fish & Blum's, on Main Street. They practice in all the courts of the State.

W. A. Simmons' drug store is on Main Street, Hanford, in Mrs. Hager's building. They keep constantly on hand pure drugs and medicines, toilet articles, and fancy goods. Physicians' prescriptions are a specialty, and everything scientifically and carefully compounded at all hours, day and night.

Chas. Sharp & Co. deal very largely in farming machinery and sewing machines, etc. It is the only firm south of Stockton that makes a specialty of machinery, so that it is to the advantage of farmers to buy from them. They have erected a very fine store, where they keep a stock of machines. They started here about three years ago, having arrived from Chicago.

Lemoore Village is situated on the Southern Pacific Railroad proper, and when the road is completed according to original intention, will be many miles nearer San Francisco than by the present route. It is situated west of Visalia thirty-two miles, south of Fresno City thirty-eight miles, west of Hanford eight and one-half miles, east of King's River four miles, and north of Tulare Lake about ten miles. The number of inhabitants is about 500. Well supplied with business houses of various kinds, that are apparently doing a safe, healthy business.

It has one of the largest store buildings in the State outside of San Francisco, being 35x150 feet, completely finished and furnished. It also has a large flouring-mill; capacity, 200 barrels in twenty-four hours; also a fine school second to but one in the county.

The Lower King's River Ditch skirts the town, and is the pioneer ditch of the Mussel Slough country. It was here the early settlers showed their courage, and endured extreme privations. They are now rewarded by seeing the most marvelously productive country in the world, when properly cultivated, which surrounds this town on all sides.

This is especially the home of alfalfa and fruits of various description. It is claimed that the raisin grape has a larger per cent. of saccharine matter in them here than any other part of the State.

Stock-raising is attracting much attention of which there are many fine specimens, both of horses and cattle as well as sheep and hogs. The immense quantity of feed produced per acre makes the amount of stock, capable of being sustained, fabulous.

The town is rather literary in its tendency, having a literary society that dates from a very early period of its existence, and has shown considerable ability in that direction; has also a large amount of musical talent, sustaining a brass band as well as two or three string bands. Many of the performers would not disgrace places of more pretentions. The general society is fully up to the standard of older settled countries. The town is keeping only a healthy growth with its surroundings. It received a set back one year ago by a fire that it has not wholly recovered from, but better improvements are taking place of the old.

The first town lots were sold in Lemoore in February, 1877, at auction. The following gives some idea of the price of lots as well as purchasers: Lot 17, J. J. Mack, $665; lot 21, L. Gilroy, $110; A. B. Cowell, $110; J. R. Heinlin, $75; D. Rhodes, $105; E. Elanger, $125; H. Hess, $120, etc.

In 1881 a paper was started called the *Lemoore Advertiser*, and afterwards appeared under the title of *Real Estate Advertiser* and *Medical Advertiser*, and it was conducted as an advertising medium for the City Drug Store, and for the real estate agency of Lovelace & Lamberson. We believe it is not now issued.

Messrs. Fox & Sweetland are the principal merchants, and deal in general groceries, fruits, candies, nuts, etc. They pay cash for poultry, eggs, hides, etc. They are located in Hamlin's Block, and are engaged in a constantly increasing business, caused by integrity in their deal with all customers.

PLANO is near the foot-hills on the stage road leading through Farmersville and Porterville, and is thirty-two miles south of Visalia, on the south side of Tule River, two miles from Porterville. There are about 120 inhabitants. There is one hotel, one blacksmith shop, two churches (Presbyterian and Methodist), and two houses doing a general merchandising business.

WM. THOMSON'S hotel or boarding-house is represented among our views of Plano, as also the Presbyterian church situated on the opposite side of the street, which Mr. Thomson has done so much financially and otherwise to sustain. He keeps dry goods and groceries, and has a stage line running from Plano to Tulare.

RUSSELL BROS.' store was established in Plano in 1881, and is receiving a fair share of trade from the surrounding country, secured by fair and honorable dealing. This building is represented among our illustrations of Plano.

George H. and John H. Russell were born in the city of Fremont, Ohio, in 1848 and 1850. George learned the ship carpenter's trade and worked at it for about three years and then went to sea for seven years. He left Upper Sandusky, Ohio, for California by railroad and reached Plano, June, 1875, and engaged in carpentering. John H. Russell came at an earlier date, about 1871. Geo. H. returned to Ohio after about one year and engaged in photography, but returned to Plano after two years.

The two brothers then opened their store in Plano and engaged in general merchandising. They carry a good stock of dry goods, furnishing goods, groceries, crockery, etc. A view of their neat little store is given in our views of Plano.

Geo. H. Russell married Miss Pametia Sowels in 1880, who was a native of California. They have two children, named Ralph James and George Earle Russell. The farm is small, only five acres, devoted to hay and fruit. There are 125 miscellaneous fruit trees doing well.

A Presbyterian Church was established in 1869, and a church building erected. There are but four or five members and no minister. The building is wood, well finished outside and in, with a belfry, bell, and observatory; the whole was erected at a cost of $3,500, the heaviest part of which rests still on the Elder, Mr. Wm. Thomson, who gives us the following reminiscences of the country and of church history:—

Wm. Thomson, of Plano, says he came to Visalia, California, the 29th of June, 1867, found the citizens clever and neighborly, but very different to his old Ohio neighbors. He lived there through the summer and came to Tule River in the fall, about the 1st of October.

The post-office was called Tule, and was on the south side of the river near where the bridge now stands, and Geo. McKeloy was Postmaster.

George and C. McKeloy laid out a town at that point and called it Vandalia. The McKeloys were rather inclined to be sickly and the location was declared to be unhealthy.

Where Porterville now stands R. P. Putnam had a store, and there was a hotel, or stopping-place, and a blacksmith shop. They tried hard to make a town there but had no post-office, and were obliged to go to Vandalia for their mail matter. They tried to get a post-office but failed; the McKeloys became very sickly, especially George, the Postmaster. The Porterville folks worked upon him and persuaded him that he had better move to that place, as it was a growing place. So over he went and took the post-office with him. He died shortly and left the post-office in Porterville. That left the south side without any post-office; the river at that time in the winter was almost impassable from quicksand, and no bridge was then built. A petition being gotten up setting forth the facts, a post-office was granted and named Plano. A. J. Adams was appointed Postmaster. He lived south of Tule River on the edge of the plain where the settlement now is, called Plano.

On the morning of December 25, 1867, the water came roaring down old Tule, sweeping away fences and bringing a tremendous amount of flood wood from the mountains, which was split up and used for fencing, fire-wood, etc.

During that winter the Indian agent brought from Inyo County several hundred Indians, called Manachees. The measles got among them, and they not being acquainted with the disease, practiced jumping into cold water, which invariably killed them. This Indian "cure all" is illustrated on page 92. Those who escaped death went back to their old home in Inyo County.

After the McKeloys left Vandalia, the Methodists having a church building there concluded the place was too sickly for that also and it would have to be moved. The Porterville folks were anxious to have it located there. The minister, Rev. Burton, then in charge, decided to get up two subscription papers, one for Porterville and the other for the south side, where Plano now stands, circulating them himself, keeping his own secrets and seeing which side would give the most. When through he decided the church would go where the church members were, that is where Plano is now situated.

In 1870 the M. E. Church was moved over to Plano, where it now stands. The school house at Plano is one of the best in the county having at the present over ninety scholars.

In 1879 Rev. Hiram Hill, a Presbyterian preacher living in Visalia and preaching there, also in Porterville and Plano, concluded that it was best to organize a Presbyterian Church in Porterville. "To this," says Mr. Thomson, "I made no objection, but said if you have encouragement sufficient, let the First Presbyterian Church building on Tule River be at Porterville.

"The church was organized, the Gibbons' near Plano taking an active part in the building of a church building at Porterville. I had been liberal in the support of the present ministers and thought I should have some chance for church privileges at my home, Plano. So I asked Mr. Oviatt, the minister that was carrying forward the work at Porterville, if he thought best for us to make a move in that direction. He said yes; that would make two preaching places, and more money could be got from the Board of Home Missions for the support of a preacher. So I secured a lot and went forward to secure what money I could. Mr. Oviatt got an architect to draw a plan for the building and told me to go on with it, while he was doing all he could for Porterville. I went forward and raised some money, got some from Ohio. Mr. Oviatt said we could get help from the Board of Church Erection at New York, so he asked for $700 for Porterville and $350 for Plano. It was so managed as to get $600 cash from the New York board to use in Porterville, where there are no church members, but failed to get $1.00 for Plano church.

"After the Plano building was finished I settled with the trustees and found I had paid out about $2,000 over what had been donated. They gave me notes for the amount. I am now asked and expected to donate the whole amount in order that this nice little building may belong to the Presbyterian Church, no effort being made by any one to raise a dollar for my relief, so I must assume this debt or have my friends say, We gave you our money on a Presbyterian Church and you failed to accomplish what you proposed. So I stand charged with the blame or entitled to the credit of putting $2,000 in a Presbyterian Church in Tulare County."

WM. THOMSON was born in Green County, Ohio, September 27, 1825. He came to California, June 12, 1867, by the Isthmus route. He was in the employ of the United States Government on the Tule Indian Reservation from 1871 to 1873, under Chas. Malthy, agent. He afterwards located in Plano, as related.

He married Miss Ploomey Jane Tilton, in 1854, a native of New York, but later of Ohio. They have seven children, named Alex. John, Tannie Eliza (now Mrs. O. E. Gibbons), Willis Merriman, Mary Eveline, James Steward, David Edward, and Sarah Jane Hayes Thomson.

THE TULE INDIAN RESERVATION.

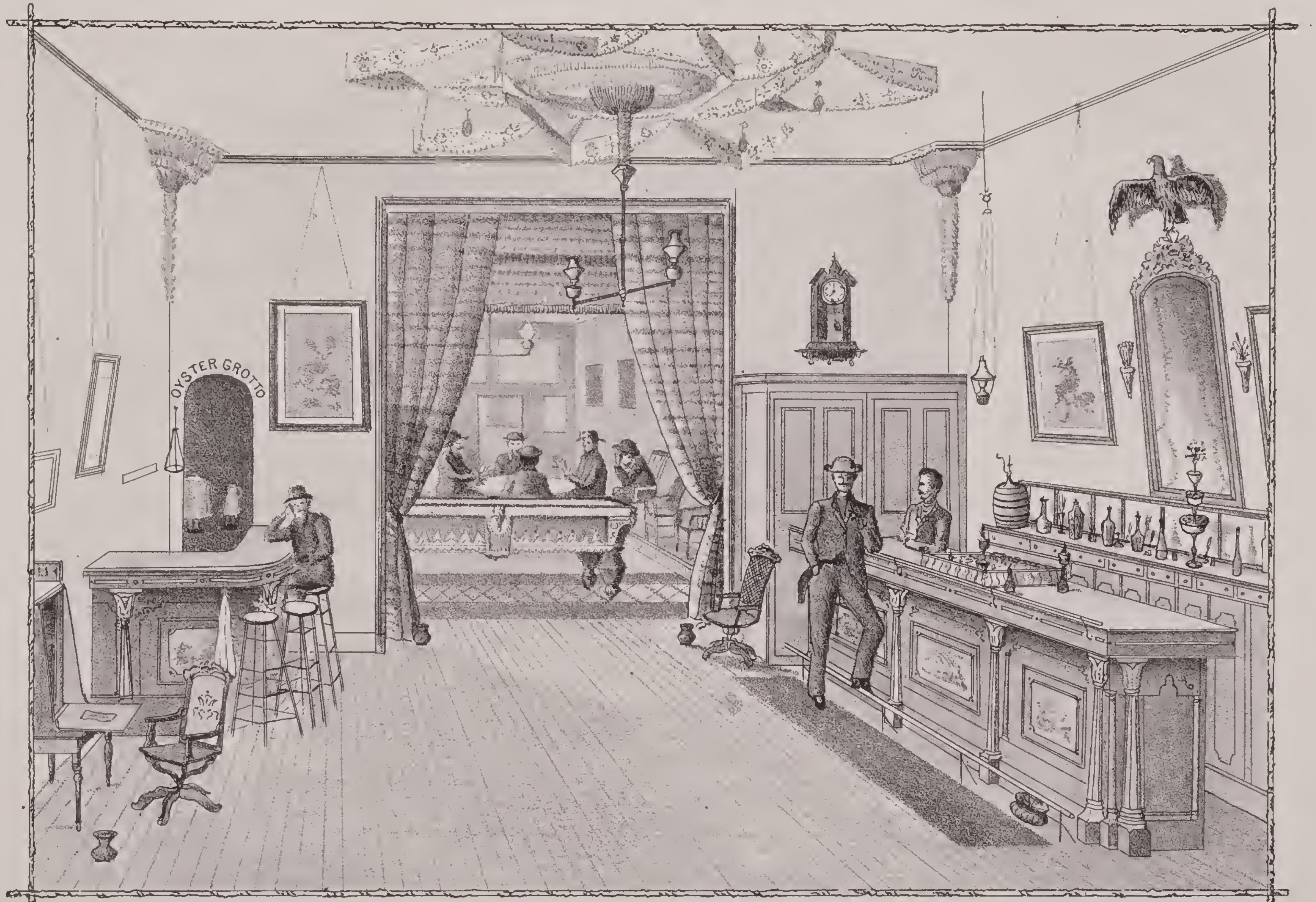
In 1871 Mr. Thomson went to work for the Government on the Indian Reservation four miles above Porterville. The agent at that time was Chas. Maltby. "I worked there for eighteen months. While there I learned a little Spanish, as some of the Indians talk Spanish. Some of them are quite industrious, others are drunken and very trifling. Soon after I quit the reservation they moved the Indians sixteen miles above Plano on the south fork of Tule River."

C. G. Bellknap was made agent and still holds the place. Near where the reservation now stands there is what they call the "painted rock" with all manner of curious looking creatures painted that have perhaps been there for thousands of years.

After leaving the reservation and the employ of the Government, Mr. Thomson clerked in Porterville for N. Baker & Son, for eight months. At that time, 1872 and 1873, the Bakers were doing a thriving business, and so was R. P. Putnam. In the fall of 1873 he was appointed Postmaster at Plano, and started a little store, calling it the "Ohio Store" after his native State.

HOT SPRINGS.

The Hot Springs are situated on the north side of Deer Creek about twenty-five miles from Plano. They are used at


OYSTER GROTTO

PALACE SALOON. HANFORD. TULARE. CO. CAL. R. MILLS. PROPRIETOR.

ELLIOTT LITH. 421 MONT. ST. S.F.

present by camping parties, no improvements having been made. They are open to the public, a location has been made but not complied with. About half a mile below the bathing spring, which is just medium, the water bursts out of the rocks, and is very hot. It continues to gush out of the rocks for about half a mile. These springs are very valuable.

Deming Gibbons, of Plano, was born in Franklin, county of Delaware, State of New York, on the 20th day of June, 1822. His parents, Timothy Wells and Ruby S. Gibbons, emigrated from Granville, Massachusetts, and settled on a small farm. They raised ten children, seven sons and three daughters, Deming being next to the oldest, a sister being older. His father's health failing, Deming's opportunities for education were quite limited. He worked on the farm at home until his twenty-third year.

In the spring of 1845 he went West, bought Government land in Lake County, Illinois, and commenced farming for himself a part of the time, and working for wages the rest of the time. September 13, 1848, he had his leg broken in the horse-power of a thresher—a compound fracture, breaking the large bone twice, the small bone once, and smashing the ankle joint, and tearing the cords and flesh off except the heel cord and the flesh around it. It was not properly attended to by the pretended surgeon, and after three months of suffering, he went to Dr. Daniel Brainard, President Chicago Medical College. There were seven running sores near the ankle at the time. The doctor cut it open, removed the loose pieces of bone that should have been taken out in the first place; it took about a year to heal, ossify, and be so that he could walk on it. This left him $500 in debt.

November 16, 1848, he married Amanda Hawthorn, daughter of David and Mary Hawthorn, a native of Mercer County, Pennsylvania. Gold excitement of California made money scarce and rates of interest very high. Short crops and the low price of grain made it hard struggling with such a debt. Finally in 1854 he sold out, and with wife and two children moved overland to Texas *via* Missouri and Indian Territory. Arrived in Fannin County late in the fall, and engaged in farming and stock-raising on a small scale.

He lived there until the spring of 1861, an avowed anti-slavery man, openly and above board (as remarked by the ex-Sheriff of Fannin County), and a regular subscriber to the New York *Tribune* all this time. On the breaking out of the Rebellion, he traded the farm at a great sacrifice, and on the 3d of May, started overland for California. A. M. Goss was elected captain and Dr. McKinny wagon-master. When at Eagle Springs, near Rio Grande River, were overtaken by a detachment of Confederate soldiers on their way to El Paso and Fort Bliss to capture Uncle Sam's provisions that were stored there. At Eagle Springs the oxen of the train stampeded in search of water, and it required two days to gather them up. The Confederates stole one ox belonging to Mr. Gibbons. News was circulated in camp that they would be prevented from leaving the State and their property confiscated if they did not get out on or before the 5th day of July. The 5th day of July came, and the train was still in Texas, but intending to cross the Rio Grande before night.

In the morning scouts went up and down the river in search of the ford. Those from down the river soon returned, saying that they found the ford guarded by a company of Confederates. The train started up the river in search of a shallow place in the river, which was soon found, and, forcing loose stock through the river, they soon succeeded in settling the quicksand so that they all crossed safely, the water running into some of the wagons and wetting some provisions and clothing. The train sent a delegation to the commander of the Confederates at Fort Bliss to know if they could pass with their property. They were told that they were safe in Mexico, and they had better stay there.

A route was taken through Mexico by way of Carisal, Coralitos, Santa Cruz, Tubac, and Tucson. July and August being the rainy season in that part of Mexico, plenty of water and grass was found in Mexico. There was a great deal of sickness in the train and about forty deaths, the train numbering about 300, but Mr. Gibbons' family had no sickness, one daughter being born in Mexico, who is still living. They suffered from heat on the deserts of the Gila, and the stock from heat and want of grass.

Mr. Gibbons arrived at El Monte, in October, without money, but sold a horse for $125. He arrived on Tule River the 27th of November, 1861, and rented a few acres of land the first and second years. He settled on the land now owned, by preemption, the next year changed it to homestead, and planted an orchard and vineyard, the second and third years, and engaged in raising cattle and horses. The dry year of 1864 some cattle starved and several horses died.

There being no school house on the Tule that was worthy the name of well-established school, he took a prominent part in building a school house and sustaining a school, and when a post-office was established, suggested Plano as the name. He took an active part in forming the incorporation of a cemetery association under the name of the Vandalia Cemetery Association. In fact any enterprise for the improvement of the neighborhood received his aid to the best of his abilities.

Mrs. Gibbons proposed, in 1863, the planting of the seeds of a very fine orange as an experiment as an ornamental tree if it should prove too frosty for the fruit. Accordingly a place near the house was prepared with much care, and three trees planted, Mrs. Gibbons covering them frosty nights, until learning, two or three years after planting, that oranges were successfully raised north of here, the trees were left uncovered in frost as well as sunshine, and in eight years two very fine well-flavored oranges were produced, the seeds of which were planted, and Mr. Gibbons now has seventy-four orange trees planted out for the purpose of raising oranges, seventeen of which are bearing. He planted a number of lemon and lime trees but the frost was too hard for them, killing trees one and a half inches in diameter. The experiment of sending to Los Angeles for trees has been tried twice without success, the frost killing them, while seedling trees raised on the spot were uninjured. In 1881 he took the first premium for seedling oranges at the Los Angeles Citrus Fair in March, a large number being on exhibition.

The orange trees are not shown in the picture of Mr. Gibbons' place, to which attention is called, being on east or left except two large trees in front of the house. His farm consists of 120 acres of plain, 40 of hog-wallows, and 40 of alluvial land; 130 acres are sown in wheat and barley, 15 in alfalfa. The fruit trees are apple, 83; peach, 130; apricot, 21; pear, 16; plum, 14; almond, 12; fig, 13; quince, 4; pomegranate, 4; walnut, 4; nectarine, 2. The farm is situated one-fourth of a mile from Plano, where there is a public school and two churches. The number of cattle kept by him is 8; hogs, 9; sheep, 120; horses, 3; mules, 2.

The number of children living are: sons three and daughters five. Names of children, Ossian E., Ruby A., Cornelia H., Amanda S. are married, and living on Tule River. Cornelius H., unmarried, and on the road to Montana with a band of sheep. Family at home are Rosetta L. and Rosanna L., twins, eighteen years old, and Ulyssus Schuyler, fourteen years old. Mrs. Gibbons died April 1, 1880, being in her fiftieth year.

GRANGEVILLE is ten miles north of Tulare Lake, in the Mussel Slough country. This is the garden spot of California. The soil is a black, sandy loam. The country is a level plain, with forests of excellent oak timber along the water courses. In places the forests are thick, with trees lofty and symmetrical, while again for miles there are but scattering giant trees with tops a hundred feet in diameter. But most of this country is a level, treeless plain, generally cultivated, but without fence or other obstacle to a carriage drive.

As early as 1874 it had three water ditches from King's River. It was at one time a place of more importance than now. Its prospects were injured by the location of the railroad near by and also by having no adequate facilities for reaping it at the nearest point, until lately a switch has been constructed. In 1873, the Grangers built a large school house and hall combined. It has now two stores, two harness shops, two saloons, and a blacksmith shop.

The M E. Church was erected at a later date. There is a flourishing lodge of Good Templars with the following officers: W. C. T., Lincoln Burrell; W. V. T., Ella Robinson; W. F. S., Sarah Ayers; W. R. S., Ollie Blakely.

There is a steam flouring-mill here, the boiler of which was formerly used in the lumber regions of this country.

GOSHEN is a station on the S. P. R. R., 241 miles from San Francisco, at the junction of the Visalia road and also the Goshen branch extending to Huron, forty miles through the Mussel Slough country. There are only two small hotels and the railroad buildings here. It is surrounded by an alkali country not farmed, and hence no local support for a town.

TIPTON is on the S. P. R. R., 262 miles from San Francisco, and about twelve miles south of Tulare City, on the railroad. It is as yet a very small town, having but two stores, one hotel, and a few other buildings. It is destined to have a "boom" soon, however, for it is in one of the most important sections of the artesian belt. Some of the best wells in the county have been bored within a few miles of Tipton. Land is cheap there just now but it is being bought up and settled upon very rapidly. Tipton is destined to be a thriving place.

The country here is all open and very much as Fresno was before the introduction of its ditches. Some of the settlers are building very substantial houses, are rapidly moving in and preparing to improve their land. Those who are lucky enough to have artesian water are setting out orchards and vineyards and putting out alfalfa or millet, and making their places look handsome.

CROSS CREEK is a switch on the railroad, seven miles north of Goshen. It is of no importance only as a shipping point for stock and grain.

LAKESIDE as it name implies is situated near the lake, and is but a small collection of neighbors. The Lakeside ditch for irrigation passes through here, but the water is often very low on account of use further up. There is a Good Templars Lodge here with the following officers: Thos. E. Howes, W. C. T.; Emma Eells, W. V. T.; Bell Meadows, W. S.; Flora Dibble, W. F. S.; Mrs. Frank Howe, W. A. F. S.; C. F. Goodale, W. M.; Judson Dibble, W. I. G.; Sidney Meadows, W. O. G.

WOODVILLE, is situated twenty miles south of Visalia, in the center of a vast farming country and the natural center for a large business, but is quite lacking in energy and thrift. It is on the Tule River, about six miles east of the railroad.

It has one store owned by Dickey Bros., who do a large business, and also run a wagon factory and a blacksmith shop. The country around Woodville is well cultivated, and most of the farms are well improved. The cattle interests of this locality are quite extensive.

PORTERVILLE is situated on Tule River just as it leaves the foot-hills twenty-three miles southeast of Tulare City, and thirty miles from Visalia. It has a hotel, a church, two drug stores, two blacksmith shops, four general merchandise stores, a good school house with two departments, two livery stables and a first-class grist-mill run by water power.

It has probably 300 inhabitants, and has a good farming community to support it. The land is rich and much of it is under cultivation. Some of the best orchards in the county are in that vicinity. The cattle and sheep interests of this neighborhood are also very large. The town is situated at the foot of the great Sierra Nevada Range, and consequently peculiarly blessed in the way of scenery. At a single glance may be seen the foot-hills covered with their beautiful green, and the snow-capped peaks in the distance, but the greatest novelty to new-comers is the view of the snow upon the mountains by moonlight. It is grand beyond description, and one never tires of gazing on the sublimest of scenes.

FARMERSVILLE is a small hamlet seven miles from Visalia, and twelve miles northeast of Tulare City. There is a large hotel kept by Mr. C. P. Brown, a blacksmith shop belonging to the same gentleman, one store, and several other small buildings, and a large two-story school house. The country around Farmersville is similar to that in the vicinity of Visalia. It is heavily timbered and is very rich. About all of the land is fenced up and most of the farmers have good houses and are well-to-do.

Farmersville lodge of Good Templars is in a very flourishing condition, and meets regularly.

YOKOHL Post-office, T. E. Carrington, Postmaster, is twenty-three miles from Visalia, on the Yokohl Creek which is a branch of the Kaweah. The stage road passes over an elevation of two or three hundred feet into the valley of the Yokohl, the waters of which are mainly utilized for irrigating purposes. This valley is about fifteen miles in length, by from two to three miles in width, and is divided into two school districts. The country here, excepting immediately along the banks of the river, is undulating and is excellent grazing land. Along the river are some fine farms, well stocked.

The valley extends northwest and southeast, and the route passes through the entire length of it to Blue Ridge (a spur of the Sierra Nevada Mountains), which it crosses, reaching an elevation of 2,500 feet. From the summit of this mountain it takes a southeasterly course, and descends into the valley of Mountain View.

MANZANITA Post-office, Mrs. E. A. Cramer, Postmistress, is located twelve miles from Yokohl. This valley is about twelve miles in length, and from one-half to five miles in width. It is watered by the North Tule River, which rises high up in the mountains and flows southwest into Tulare Lake. The soil in this place is not adapted to agriculture, though there are four or five quite excellent farms, and fruit of very fine quality is quite extensively raised. Stock-raising is the main industry, and the surrounding hills and mountains furnish excellent grazing for cattle, while the great quantities of mast which abounds here, furnish food for thousands of swine.

SODA SPRINGS, quite celebrated as a summer resort for invalids in summer, is situated where the Middle Tule empties into the main river. The facilities for irrigation are increased, making the country, as one descends the river, more favorable to agriculture. At this point there are but few farms, except those for the cultivation of fruit; and, as in Mountain View, stock-raising is the main industry, both on the Middle and Main Tule.

The school house is built in close proximity to the springs, where the pupils can resort during the intermission, and quaff the health-giving liquid. At this point is a boarding-house and hall, built by Mrs. Tabor, of San Francisco, about 1872. She at that time attempted to establish a "water cure," but abandoned it as a non-paying institution.

GREENBACK is situated in Pleasant Valley. A. Fletcher, Postmaster. The valley is seven or eight miles in length, and from three to seven in width, and is peopled with an enterprising, industrious class, who use the rich soil especially for cereals and fruit.

There was a Greenback Association formed here which still lives and flourishes. The success of the association gave rise to the desire to perpetuate the name by giving it to the post-office. This district embraces a number of good farms, where grain is raised exclusively, and also many small ones near the foot-hills that are well adapted for the cultivation of fruit and vegetables. The industries of this section are stock-raising, cultivation of fruit, carp culture and poultry-raising. The fruit raised here is second to none in the county, and many new orchards and vineyards are now being started.

There are here several fine ponds stocked with carp, and many more to be started, an industry which has a pleasing appearance to nearly every one as it combines both the ornamental and the useful.

FRAZIER Post-office, Mrs. M. C. K. Shuey, Postmistress, is named from the valley in which it is located. This valley is about twelve miles in length, by from two to six in width, and is one of the richest farming sections in the county. Nearly all the land is level and is easily cultivated. Tropical fruit such as the orange, lime, and lemon have been raised here in a few places, while other varieties of fruit are raised successfully.

DILLON'S MILLS are nine miles from Visalia on the headwaters of the Tule River, and Rand & Houghton's mill is eight miles further up the stream on a branch called the Rancherea. The lumber of these mills is hauled to Visalia.

CAMP BADGER is situated in the mountains close up to the snow line, near the lumber mills. In the summer-time large flocks of sheep range through this section of the mountains and overrun the settlers. This is the post-office address of Supervisor W. T. Osborn, who ably represents this section of the county.

Biographical Notices.

Wm. Thomas Osborn, of Tulare County, is among the number of those early pioneers who braved privations, perils, and even death itself, in helping to open up civilization on the Pacific Coast. He was born in Georgia, March 27, 1827, and his early years were spent on a farm, to which occupation he was brought up.

At the age of twenty-two, he left his native place bound for the gold fields of California, of which wonderful stories had reached and spread all over the Atlantic States. Arriving at Independence, Missouri, which was at that time the starting point for trains bound overland, he joined a train, and on the 9th of May, 1849, the long train of ox-teams formed in line, and with high hopes, and fond anticipations of untold wealth in the near future, the long and eventful journey was begun.

The experiences of Mr. Osborn were similar to hundreds of others in that early day. The route taken by them, after leaving Salt Lake, where they spent two months resting and recruiting their teams, was by the southern route, without a guide or even road, and they were finally obliged to abandon their wagons, and with what little provisions they could carry, drive their oxen 400 miles across the desert, through Death Valley, crossing the Sierra Mountains through Walkers Pass, at the head of the South Fork of Kern River, thence northwest to Mariposa County where they found the first settlement of whites. At that time, 1849, there were no settlements south of Mariposa Creek in that valley.

Mr. Osborn mined from 1850 to 1856 in Mariposa and Merced Counties with indifferent success. In the fall of 1856 he came to Tulare County and engaged in teaming and lumbering, which occupation he followed for a number of years.

He is at present engaged in farming, on 160 acres, forty miles from the county seat. His post-office is Camp Badger, three quarters of a mile from school and church. The land is mountain valley, good soil. Barley, oats, and hay give abundant yield. He has a young apple orchard. He keeps some 50 head of cattle, 300 hogs, 30 sheep, 15 horses.

In 1865 he married Miss Lavina Smith, a native of Virginia. They have five children, Mary Lavina, Thomas Jesse, Sarah Olive, Helena Drucilla, and James Orlan Osborn.

John F. Jordan, the County Auditor, is the youngest man who ever held a county office in Tulare. He was elected in 1879. That this was a good selection is proven by his integrity, ability, and faithfulness, which insured his re-election in 1882.

John F. Jordan is a native of Louisiana, where he was born December 10, 1850. When four years old, his father, Frank Jordan, who was captain of the train of seventy-four families which came across Texas to California in 1854, took him along and landed him safely after a nine months' journey, in San Juan, Monterey County, California.

In 1860 he became an inhabitant of this county and remained such ever since. Although he roamed about in many of the counties of California in order to get an education in private and public schools, or to find his fortune in the mines, still he looked upon this county as his home. Not being very fortunate in his mining operations, though retaining his health, he engaged in stock-raising and farming until 1874; but being ambitious and not satisfied with the education he had received so far, he entered Heald's Business College in San Francisco, from which he graduated as a book-keeper, February 18, 1875.

After returning from San Francisco he became successively Deputy Postmaster, Deputy Sheriff under C. R. Wingfield, Deputy Superintendent of public schools, and Deputy Auditor. In 1878 he started a business of his own, a butcher shop; but having shown himself an efficient deputy, he now was called upon to fulfill the full duties of a county officer, which he has done to every one's satisfaction.

Mr. Jordan in 1881, married Miss Allie L. Neille, the amiable daughter of the present Justice of the Peace, Hon. A. C. Neille, who on the 15th of July, 1882, presented him with a daughter, which is named Ethel V. Jordan.

Seth Smith was born in Columbia County, New York, April 19, 1846, in which vicinity he remained until his twentieth year, when he removed to New York City, where he lived two years.

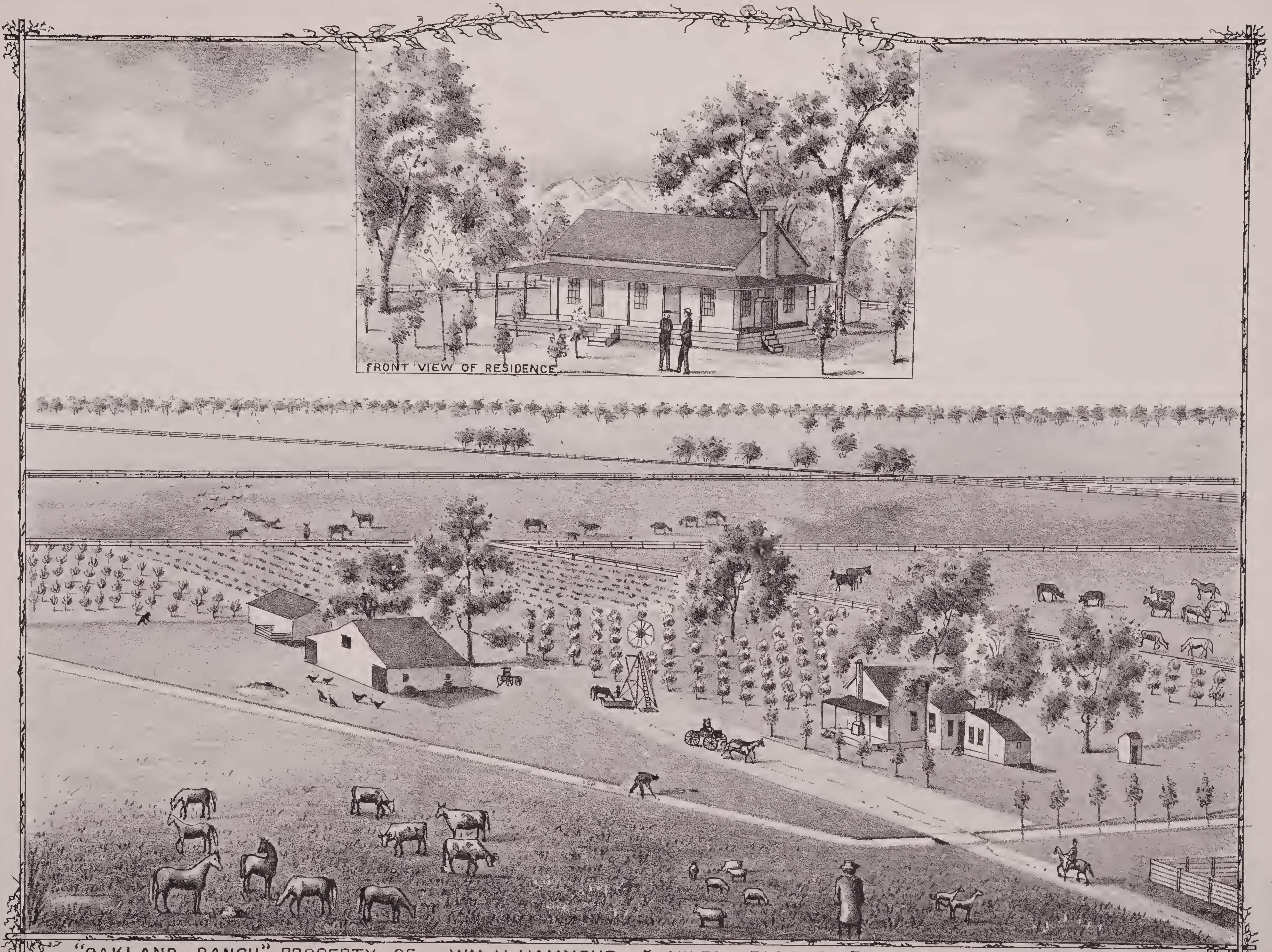
Taking the advice of Horace Greeley, he left New York in 1867 and removed to Kansas, taking up his residence in Louisville, Pottawatomie County, where he lived for eight years. In 1875 he left Kansas and came to California, settling near Visalia, in Tulare County.

In 1877 he was elected County Surveyor of Tulare County, and took up his residence in Visalia, where he has since resided. He was also elected County Assessor in 1882, and is filling the place with satisfaction to all his constituents.

He married Miss Mary L. Anderson, a native of Ohio, in 1870. They have two boys.

Charles H. Murphy, Superintendent of Public Schools of Tulare County, was born January 31, 1854, at High Hill, Ohio, a small town near the Muskingum River, so called from its being situated on the highest point in the State, and is noted for its high mounds and old ruins of an extinct tribe of Indians. His parents who were natives of Loudoun County, Virginia, returned to that State, engaging in agricultural pursuits, and in the year 1867 removed to southern Iowa, where they are now living. The confused state of the public schools during that period afforded but meagre facilities for a public school education.

In the summer of 1872, after having finished the public


FRONT VIEW OF RESIDENCE.

"OAKLAND RANCH," PROPERTY OF WM. H. HAMMOND. 5 MILES EAST OF TULARE CITY. TULARE CO. CAL.

school course he (Charles H.) entered the Troy Normal School, teaching during the winter, and in 1873 entered the Missouri State Normal School, making his way by alternating, teaching a time and then attending school, and in June, 1876, graduated from that institution. In August of the same year he came to California, engaged in teaching, the three years previous to his election as Superintendent of Schools of Tulare County, acted as Principal of the Visalia Public Schools.

J. E. DENNY is one of the popular and influential men of Tulare County. He is a native of Illinois, and came overland as early as 1854 with an ox-team, as was then the custom, and at once engaged in mining with others in Sierra County.

He came to Tulare County in 1859, and was successfully engaged in a ferry and also in mercantile pursuits for a number of years.

In 1873 he was elected on the Independent ticket to the office of County Clerk, and in 1875 was elected to that of County Recorder and Auditor. In 1882 he was elected to the position of County Recorder. These positions have been ably and satisfactorily filled as is shown by his re-elections.

L. GILROY, the County Clerk, keeps the business of the office in neat and comprehensive style, and discharges the duties of his position with credit to himself and his constituents who elected him to that position in 1882, by the largest majority given any candidate.

Mr. Gilroy was engaged in a large general merchandise and commission store. He commenced doing business in Lemoore the 1st of November, 1878. He was previously in business in Kingston, Fresno County, in partnership with E. Jacobs, of Visalia, under the firm name of Gilroy & Co. He made himself successful as a merchant by giving more goods and a better quality than any other store in the county.

While Mr. Gilroy was living at Kingston, he had an adventure with the noted highwayman, Vasquez, who with two others came into his room while he and E. C. Douglas, of Visalia, were eating their suppers, and demanded their money, watches, and the safe key from Mr. Gilroy. Mr. Gilroy knocked one down with a chair and another with his fist. The third one then knocked Mr. Gilroy down with a six-shooter. They then tied him and Mr. Douglas, taking watches and money from both of those gentlemen. An extended account of Vasquez' operations is given elsewhere.

Mr. Gilroy is a pleasant, genial gentleman, and polite and accommodating in his official business connected with the office of Clerk.

WILLIAM F. MARTIN was elected Sheriff of Tulare County in November, 1882, by a large majority. He has, since he came into the position, proved himself to possess in a high degree the executive ability required in that position and in the discharge of his duties commands the respect of the people.

THOMAS CREIGHTON resides in Visalia, and is a civil engineer by profession. His experience has been very large, having been for sixteen years prominently engaged in railroad and other public work.

He was born in Cobourg, in the Province of Ontario, Canada. He resided in Rochester, New York, for a number of years, and came to Tulare City, June 26, 1874, and engaged in his old profession of surveyor.

He was married in 1859 to Miss Helen M. Smith, a native of the State of New York. They have one child, Fred. M. Creighton.

Mr. Creighton is the County Surveyor of Tulare County, having been elected to that position in 1882 by a very large majority.

J. W. C. POGUE is one of the representative men of Tulare County, to which place he came in 1862, and engaged in farming and stock-raising. He was born in Greene County, Tennessee, June 1, 1839. At the early age of three years he lost both his parents the same day, of typhoid fever. They had emigrated to Missouri in 1844. In 1857 he started for California by the overland route and was six months on the way. He first stopped in Sonoma County, October 1, 1857, and went to farming. In 1859 he went to Mendocino County and resided in Little Lake Valley two years.

He married Miss Nancy M. Blair in 1859, who was a native of Missouri. They have six children, named as follows: Martha Louisa, Eugenie, J. Earley, Sariah Evey, Thomas, and Olly M. Pogue.

Mr. Pogue is one of the large and successful farmers of the county. He has 3,500 acres eighteen miles from Visalia. Of this 2,000 acres is of good tillable land and the balance growing land lying on the Kaweah River just at the foot of the Sierra Mountains. On the place he keeps usually about 40 head of cattle, 400 hogs, and 40 horses.

He has only a small orchard of two and one-half acres, but it contains nearly every variety of fruit grown in California, such as oranges, limes, lemons, apricots, cherries, etc. In fact Mr. Pogue informs us that any fruit grown in California does well on these foot-hill farms and along the Kaweah River.

Mr. Pogue is now one of the Supervisors of his county and is a leading representative in the Board. He was the Democratic nominee for Senator from this district a few years ago. He is a gentleman well qualified to fill the position, being a man of more than ordinary intelligence, and an honorable, respectable citizen. He is a live man and thoroughly interested in the success of the Democratic Party.

EDWIN GIDDINGS, of Lemoore, was born on the 2d day of November, 1818, in the township of Wayne, Ashtabula County, Ohio. He was raised on a farm, attending the common schools of the neighborhood for his education. In those days the boys were expected to do the work on the farm, and if a little leisure, they were allowed to work for a neighbor, and thereby obtain spending money. The first work so obtained was driving an ox-team—four yoke of oxen—to plow. This was at the age of twelve or thirteen years; wages *twelve and a half cents* per day. At the age of twenty-two years, on the 10th day of December, 1840, he married Miss Lana M. Sweet, who was born in the State of New York. Soon after they moved into the beech and maple woods in Cherry Valley, Ashtabula County, Ohio, to carve out a farm. It was a slow process, and then when the land was cleared, it was hard to find the ground, because of the beech roots. A few years of that kind of farming was quite sufficient, particularly for one who had seen the prairies of Illinois and Wisconsin. In 1844 he visited the western country, and located a claim in Dodge County, Wisconsin. In the spring of 1845, in company with Edwin Warren, Coryden Warren, and James Warren, started for Wisconsin by land. On arriving at Cleveland, a steamer or two were in port bound for the Upper Lakes. A trade was soon made to take all—horses, wagons, and their loads, including men, women, and children, to Milwaukee, Wisconsin. The trip was a favorable one, and in five or six days all were landed safe on the wharf at Milwaukee—much cheaper, quicker, and easier than the trip could otherwise have been made.

The trip by land to the interior was necessarily a slow one—rainy weather and roads muddy. In time, however, Watertown was reached, and from there to Oak Grove the roads were passable. A few days after the party were on their claims near the foot of the Winnebago Marsh, afterwards the thriving town of Horicon on Rock River. The land settled upon was oak and maple openings. Early in the winter of 1845–46, when all were from home, his house was burned, and all therein. If there could be a bright side to such a misfortune, it was in the kindness of the immediate neighbors and friends in assisting to rebuild, and in making good their little all that had been lost by the fire.

In the fall of 1846, Mr. Giddings was elected to fill a very short vacancy in the County Recorder's Office. In the fall of 1848, he was elected County Recorder for the term of two years. Early in January, 1849, he moved to Juneau, the county seat of Dodge County. Before and during this term he was considerably troubled with the scrofula, which at that time and in that new country was very little understood. It was in this case known to be hereditary, and by many thought to be incurable. During his term of office, Doctor Whitney, of Milwaukee, had occasion to attend court in Dodge County. He was advised with, and under his treatment Mr. Giddings was much benefited.

In the winter of 1852 Mr. Giddings with his family, in company with James R. Whaley, H. H. Rich, Wm. Alexander, Selah Barber, and a few others from Dodge County, started for California overland, crossing the Mississippi at Dubuque, Iowa, arriving at Kanesville early in March. This trip was not for the purpose of making money, but for health, for a warmer and better climate to enjoy life in. Just then Kanesville was a lively place, many there, and constant new arrivals on their way to California. Everything in the provision line for man and beast was plenty and cheap. Time passed rapidly while preparing for the long, long journey across the plains. Most people there did not like to leave early. But the little party from Wisconsin, with a few recruits, joined forces with a Mr. Barrett, who had a small company at Council Bluffs, with a fair supply of grain for horse feed, and in all things being prepared for such a trip, crossed the Missouri River on the 23d day of April, 1852, and camped the first night on the west bank of the stream. It was the beginning of a long journey outside of civilization. They were the first party on the north side of the Platte River that season. In fact, the second party of the season in crossing the plains. The trip was a slow one to Fort Laramie—giving the teams plenty of time to eat, and till then having fed grain, the teams were in fine condition, seasoned to their work, and far ahead of the bulk of the emigration. From there the travel was much faster, making about thirty miles a day. After crossing the desert with safety, the teams were recruited a few days in the hills on Carson River. On arriving at the foot of the mountains, they found the one train ahead of them, waiting for company to cross the mountains. A few pack trains only had crossed the Sierras that spring. But it was thought best not to delay. The start was made. Up, up they went, traveling over twelve miles of snow. Feed, however, was found on the route, and the trip successfully made, almost entirely free from sickness, without loss of stock, landing in Hangtown, El Dorado County, on the 10th day of July, 1852. It was a pleasant and agreeable journey, among many strangers—a jolly set all seeking the golden land.

After arriving at Sacramento, and at the suggestion of J. V. Hoag, who was then running a ferry across the Sacramento River, Mr. Giddings and family went to Cache Creek, Yolo County, and there located on unsurveyed Government land south of the Harbin Grant. The winter of 1852–53 was a wet one; a flood in November, again in March—a sea of water all winter between the settlement and Sacramento, supplies all coming from that city, and the only way possible in getting them was by the way of Knight's Landing and the river. This was a hard winter, and especially so for newcomers with limited means. Talk about monopoly being an invention of these later days. Flour $40.00 per barrel. Yet that was the price during that long, dreary winter. From $8.00 to $40.00 per barrel, raised simply because a few men could control the market for a few months. Notwithstanding the rain and floods, the winter was warm and pleasant save the extreme rain-storms which generally lasted about forty-eight hours. Through the kindness of Mr. Hunt, of Cache Creek, Mr. Giddings was able to obtain seed for about thirty acres of grain. The season was good, crop good, and market good. Four dollars a hundred for wheat, a fair start in California life.

September 5, 1855, he was elected Justice of the Peace for Cache Creek Township. On November 6, 1860, he was again elected Justice of the Peace; also associate Justice in connection with I. N. Hoag, Isaac Davis being County Judge. He was elected County Clerk, Yolo County, September 4, 1861, for the term of two years and five months. At the expiration of the term he was appointed Deputy County Clerk, under Mr. Bronnell who died during the term of office. Mr. Giddings was then appointed County Clerk to fill the vacancy, by the Board of Supervisors, on the 11th day of April, 1865. On the 6th of September, 1865, he was again elected County Clerk for the term of two years. While holding office Mr. Giddings was still a farmer on a small scale. He introduced the first alfalfa near Woodland, and made the first success in raising it in the county off from the Sacramento River.

In the summer of 1873, through Mr. Geo. Cotton, Mr. Giddings heard of the Mussel Slough country in Tulare County. He made two trips to the county, traveling on both sides of the King's River, resulting finally in purchasing the claim of John Kanawyeron sections 8 and 5, township 19 south, range 21 east. Afterwards he purchased land of Mr. Williams immediately on Mussel Slough and adjoining, which now constitutes his farm. A portion of the family moved onto the farm in the fall of 1873. At that time the country was dry, but the Last Chance Ditch and the People's Ditch were in the course of construction. He assisted in the construction of both ditches, and still holds an interest in the Last Chance Ditch, from which his farm is irrigated. In coming to the county he drove a small band of fine Spanish Merino sheep, which has increased till now the business of the farm is raising alfalfa and sheep.

He was elected Supervisor for the Third Supervisors District, Tulare County, in the fall of 1876. which office he held about one year and then resigned.

George Fisher Rice was born in Warrick County, Indiana, and was the second son of James and Lucinda Clark Rice. Resided principally in Indiana till February, 1854, when he started to California by what was then called the northern route, by way of Council Bluffs, thence by Salt Lake. He was seven and a half months coming, arriving at Stockton October 15, 1854. He mined in Mariposa County four years.

He came to Tulare County in November, 1858, and settled permanently, engaging in the business of farming and stock-raising. He located on Outside Creek of the "Four Creeks," ten miles from Visalia, near the head of Elk Bayou. Buying first 160 acres of land, he has continued to add to it by purchase till at the present time (May, 1883) his farm consists of 3,500 acres. He and his family have always enjoyed excellent health. He married Miss Frances N. Bell, July 18, 1861, who was a native of Iowa. By this marriage four children were born, two daughters and two sons, named, Marietta, Jennie, Lewis Clarke and James. Frances N. Rice died June 26, 1876. Marietta Rice, eldest daughter of G. F. Rice, was married January 17, 1882, to W. A. Gray, Esq., of Lemoore. They reside at Lemoore.

G. F. Rice was married in Visalia March 26, 1878, to Miss Frances Dibble, of Marietta, Ohio. Miss Dibble was a graduate of the Marietta High School, and a teacher by profession, having taught in Ohio, Iowa, and Illinois previous to coming to California, where she taught one year prior to her marriage with G. F. Rice. Mr. Rice having come to California at an early day, it may not be amiss to mention some of his experiences. He started from Indiana in company with thirty-two men, most of them single men and some only in their teens. In regard to finances the outfit was slender indeed, Mr Rice having only $11.05. He walked all the way from Council Bluffs. Two of the company died of cholera on the plains. Mr. Rice's possessions when he reached Stockton comprised some school-books and a gun. He sold the gun for $5.00; with this he paid for the first night's lodging and breakfast for himself and three comrades. For this gun he had paid just prior to starting to California, 100 bushels of corn, worth there twenty-five cents per bushel.

At the time of Mr. Rice's settlement on Outside Creek there were a good many Indians in the vicinity. These have had their home on Mr. Rice's land till within the last year, many of them having died, the rest moved away. He has always found them friendly and harmless. Mr. Rice is a Republican in politics.

Arthur Henry Sanders, of Hanford, Tulare County, was born June 18, 1852, in the county of Wellington, Canada West, on his father's farm two miles east of the town of Guelph. Till the age of twenty-one his time was spent in working on the farm and obtaining his education in the various public schools of Guelph.

May 15, 1872, he started for California by way of Chicago and the Union and Central Pacific Railroads. After spending a short time in Sacramento, he located on a wheat ranch in Merced County, on Bear Creek, six miles east of the town of Merced.

In the spring of 1874 he removed to the Mussel Slough District, where he pre-empted a quarter section of land, his present home, five miles south of Hanford. He has since been engaged there in grain and stock-raising. His ranch is twenty-five miles slightly south of west from Visalia, the county seat. The soil is a productive sandy loam, its chief want being an abundant supply of water for irrigation. For the latter, it depends upon Lakeside ditch, which is taken from Cross Creek, about eight miles below the railroad crossing near Grandview, and is supplied with water from the Kaweah River. He had 125 acres under fence, seventy-five of which are sown to alfalfa, and divided into three parts for pasture and meadow.

He has made a specialty of raising draught horses of Norman stock, and his Norman horse Enterprise is acknowledged to be in all respects the finest of his breed ever brought to Tulare County.

Daniel Rhoads was born in Edgar County, Illinois, on the 7th of December, 1821. His father, Thomas Rhoads, was a farmer four miles south of Paris, the county seat, and was one of the first settlers of that part of Illinois, having removed from his native State, Kentucky, about the year 1812. The early years of the subject of this sketch were spent upon his father's farm, until the family removed in 1835 to Ray County, Missouri. Here he worked on his father's farm till he was married to Miss Amanda Esrey, October 4, 1843. Meanwhile he had enjoyed the meagre advantages of education then afforded by the country schools of Illinois and Missouri, which he attended in winter. He then established a home for himself on eighty acres allotted to him by his father, near his own farm.

In the spring of 1846, in April, he and his wife started with his father and family for San Francisco Bay, with an ox-team, joining at times with emigrant trains bound for Oregon, and they entered California with Captain Imes' train by the Donner Lake route, through Emigrant Gap, in the latter part of September. He was induced to seek a home in the new West, as were many of the early emigrants, by the accounts of California given in the reports of Fremont's first expedition. On the route across the plains they were fortunate to escape any hostile encounter with the Indians, but a band of Pawnee Indians managed, near Grand Island, on Big Platte River, to stampede all the horses of their train except three, but they succeeded in bringing most of their cattle through. After crossing the Sierra Nevada Mr. Rhoad's party stopped for a month at Johnson's ranch, on Bear River, to recruit from the fatigue of the long and wearisome trip across the plains, which had occupied about five months.

He then settled within a mile of Sutter's Fort, on American River, and engaged in stock-raising, in the employ of Sinclair & Grimes.

In January, 1847, an Indian runner brought to Sutter's Fort, by letter to Captain Sutter, the news of the sufferings of the Donner party and their danger of starvation. Mr. Rhoads and Mr. Sinclair at once went on foot to Johnson's ranch, on Bear River, it being impossible to go with horses, so boggy was all that region from heavy rains. Here four days were spent by men, women and children, and "tame Indians" in drying beef over fires barbecue fashion, and cracking wheat and running it through sieves, the only means of milling in those primitive days.

With these supplies, Mr. Rhoads and fifteen others, with sufficient pack-animals, laboriously made their way over trackless, rocky ridges, and cañons, and across swollen streams, to the snow line on the piny ridge just beyond "Steep Hollow."

Here the pack-train was left in charge of a man and boy, and the relief supplies were packed the remaining distance of about eighty miles on the backs of fourteen men, on snow-shoes, for the first three days to Bear Valley, at the head of Bear River, and afterwards by half that number. The party started for Donner Lake February 5th. The weight carried by each man was seventy-five pounds, including a blanket, hatchet, tin cup to make soup of dried beef and cracked wheat (no tea or coffee), and enough raw hide cut in slips to make the meshes of their snow-shoes. On their route they provided for their return by tying to the limbs of pines small packages of beef and wheat in bits of canvas. So heavy was the fall of snow and so great its depth, twelve to twenty feet, as they advanced towards the summit, that seven of the party were discouraged, believing it impossible to make the trip, and turned back from the head of Bear River.

The packs of the seven who still ventured to advance in the face of these appalling dangers, were replenished from the packs of the seven who returned to the pack-train. For two weeks more these seven toiled on before they reached the snow-covered huts of the starving emigrants. At least twelve days were consumed in reaching the summit, some advance being made every day.

In two days from the summit they reached the head of Donner Lake, and the camps February 18, 1847. The lake was covered with thick ice and snow, and they made their way directly down its entire length to the head of one branch of the Truckee River. During this dreary tramp of two weeks, the relief party had suffered greatly from the severe cold and sleepless nights, their only way of building fires being to cut small green pines, make platforms or hearths of them on the deep snow, and build their fires of dry limbs upon them. This was to prevent the fires from sinking into the snow as they otherwise would in a single night to a depth of twenty feet. They slept while seated around the fires leaning against each other and wrapped in their blankets. They also set fire to the upper parts of standing dead trees, as a guide for themselves and others.

A man named R. P. Tucker, now living in Santa Barbara County, and Mr. Rhoads' brother, John P., since dead, were made commanders of the party. The other four were Mr. R. S. Mootrey, now living in Santa Clara County, Mr. A. Glover, long since dead, and two sailors, named Joseph Foster and E. Coffeemire.

On approaching the camp, February 18th, all the surroundings were so desolate that the party began to conclude that all had perished. Not a hut was in sight. At last, however, a faint smoke was seen coming out of the snow about sixty yards ahead of them. In answer to a loud hello! a woman came to the surface of the snow from a chute that rose out of a hut twenty feet down in the snow-bank. A second woman, emaciated from want of food, soon followed. Seeing the men approaching, she threw up her hands and exclaimed, with tears in her eyes, "Oh! are you men from California or from Heaven!" In this hut they found Mr. Keseberg and about a dozen others. Keseberg and others were unable to rise.

At this meeting, Mr. Rhoads says: "There were no dry eyes." Thirty of the emigrants attached to the parties here relieved had already died from starvation and exposure, either in the camps, or in vain efforts to cross the summit. The only things left them for food were a few small pieces of rawhide, and bones which they had boiled for soup again and again.

After spending two days in the camps, and distributing the greater part of their provisions, Mr. Rhoads' party started on the return trip accompanied by most of the survivors who were able to undertake the journey, twenty-one in number. During the five days spent in returning over the trail they had made, three of the rescued died. One was an infant, carried for a time in the arms of John Rhoads, the second a young Englishman named Denton, and the third one of the Donner boys, who ate too much dried beef when they reached the pack-train.

They started on their return with only one day's provisions, and expecting to get their *caches* of food in the trees, they were dismayed to find that the mountain wolves and foxes had made way with all these return supplies, and they had nothing to eat for the last three days but the rawhide strips of their snow-shoes, roasted to a crisp.

On the last day before reaching their pack-animals, they met another relief party going to the Donner camp, in charge of James F. Reed and William McCutchen. This party was sent from Yerba Buena, by direction of Commodore Stockton.

Such were some of the thrilling scenes and adventures in which Mr. Rhoads took part, in the early days of California.

In June, 1847, Mr. Rhoads moved to the Cosumnes River, and the following October to Sonoma, for the winter. In 1848 he returned to what is now Sacramento County, settling on Dry Creek, on the Briggs and Burris ranch, a mile below where Galt now stands, and was there when gold was discovered at Sutter's Mill.

For the next two years, working about two months each summer in the placer mines at and near Mormon Island, on the American River, he realized about $8,000, in gold-dust.

In 1850, accompanied by Mrs. Rhoads, he returned to Missouri on a visit, by the Isthmus route. Coming back to Sacramento County, he removed in April, 1851, to the neighborhood of what is now Gilroy, and bought 1,000 acres, for a stock ranch. In 1857, he drove his stock across the coast mountains to the wild plains along lower King's River, then called by the Mexicans, *Rio de Los Reys.** His family remained in San Jose, for the education of his children, till the fall of 1860, when he removed them to his present home near Lemoore, which now greatly improved and beautified is represented in this volume as his "Evergreen Farm."

From that date, Mr. Rhoads has been prominently connected with the organization and history of Fresno and Tulare Counties. Here he has acquired a comfortable competency, is familiarly known, in a large circle of friends, as "Uncle Dan," and his name will be long and honorably remembered as one of the earliest pioneers of central California.

His family consists of three daughters and one son living, three sons having been buried in their childhood. Those living are: Mrs. Sarah Phillips, the wife of J. F. Phillips, of Lemoore, deceased; Mrs. Mary Keiffer, of San Mateo County; John W. Rhoads, married and living on a ranch near his father; and Miss Elvira H., who remains at home with her parents.

A. S. AYERS is another of the prominent farmers of this county, and lives near Grangeville, within one mile of the church, and six miles from the railroad. At this home-like place we find Mr. A. S. Ayers, Mrs. Ellen Ayers *née* Mullen (married April 14, 1858), and their six promising children: Sadie, Andrew, Lillie, Edward, Walter, and Harry Ayers.

Mr. Ayers owns a farm of 640 acres, wheat and alfalfa land, an orchard containing 600 trees bearing fruit of different varieties, 12 head of cattle, 100 hogs, and 16 horses. He was born November 15, 1831, in Richland County, Ohio; has been brought up as a farmer, and left his home for California on the 22d of March, 1852.

Mr. Ayers arrived in Grizzly Flat, El Dorado County, the 23d day of July, 1852, and did, as almost everybody else, commence to mine. At first he mined in what is known as the Brownsville diggings, until 1856, then, until 1858, near Jackson, het hen went to Butte mines, where he mined on the Feather River until 1866.

In 1866, Mr. Ayers gave up mining and commenced to farm in Yolo County; he remained there until 1877, when he settled down in what is known as the Mussel Slough District, in this county.

OLIVER PADDOCK lives within six miles of Hanford, three miles from the railroad, and twenty-eight miles from the county seat. Mr. Paddock is a prominent sheep raiser. He owns a flock of 600 fine sheep, which are valuable more on account of quality than quantity. His farm of 320 acres is of fertile soil, and adapted to raising most any kind of farm products. His orchard of 200 trees furnishes peaches, apples, pears, plums, cherries, apricots, and nectarines. Six cows furnish milk, six hogs meat, and there are ten horses for work and pleasure. Altogether we see that Mr. Paddock has a pleasant and desirable home and property. That he had to work hard for it can be surmised.

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*His cattle range extended to the Four Creeks, then known among the Spaniards as *Quatros Arroyos.*

Mr. Paddock's birth occurred April 4, 1834, in Cattaraugus County, New York. He lived with his parents on a farm up to his sixteenth year, when he entered into a mercantile concern. Before coming to California, he had drifted to Wisconsin, whence he started on the 1st of April, 1859, for this State. On the way overland, per ox-train, of which he was captain, he was once captured by Indians, but escaped unhurt. He says it was a nice trip of five months and twenty days, without any accidents worth mentioning.

Mr. Paddock's career sincehe arrived in California, September, 1859, has been one of prosperity. In 1861, he went back East in order to bring his family to his new home in Tehama County. In 1863, he spent the summer in Virginia City, Nevada; then went to San Mateo County, where he resided until 1876. In the same year he came to this county where his present home is located.

Mr. and Mrs. Paddock (the latter Miss R. J. Lewis, of Michigan, whom he married in 1856), have a charming family of seven children, one boy and six girls, named: Edith O., May E., Fannie L., Jennie G., Nellie G., Bertie L., and Chester B. C. Paddock.

Samuel Tome has a fine place, which appears amongst our illustrations. His neat and pleasant home is situated near Hanford, in this county. Mr. Tome, who is a farmer, cultivates 240 acres of land, which bring him an average of twenty bushels per acre yearly, and an orchard of 135 trees, which brings him fruits of various sorts. He owns 12 head of cattle, 45 sheep, 20 hogs, besides horses and mules.

Mr. Samuel Tome was born October 31, 1830. He grew up on a farm, and became a farmer. In 1860 he emigrated to Illinois from Pennsylvania; then in 1864 overland to Oregon; and finally, in 1866 came to California, where he established himself in Stockton.

Seven years before leaving his native State, Mr. Tome married Miss Nancy Smeltzer, who is also a native of the same State. She accompanied him to every place where he went, and is at present making his home a pleasant one. Mr. and Mrs. Tome are the parents of four bright children, two boys and two girls, named: Agnes Wilson, Susie Bingham, J. Pelter, and Henry Tome.

In 1873 the family moved into this county to their present abode, which is situated twenty-one miles from Visalia, three and one-half miles from the railroad, one and three-fourths miles from a school, and within three and one-half miles of a church.

Madison Monroe Burnett was born in 1848, near Warsaw, Benton County, Missouri. When nearly eleven years of age, his two older brothers, Isham and John, joined on the 3d of May, 1859, a company consisting of eight families, who started on that day per ox-train across the continent towards California. At the request of the little boy, his brothers took him along, and thus he became a member of the party.

As the company had a large drove of cattle, it took them four and a half months to accomplish their journey. They were attacked once, while going through Echo Pass, by a band of 100 armed Indians, which were repulsed, but succeeded in killing a large number of the company's cattle.

In the fall of the same year, Mr. Burnett, whose history we will give now only, arrived at Mountain View, where he attended school until 1865. Then he learned blacksmithing, which trade he followed up in different places until 1874, when he settled down and became a citizen of this county.

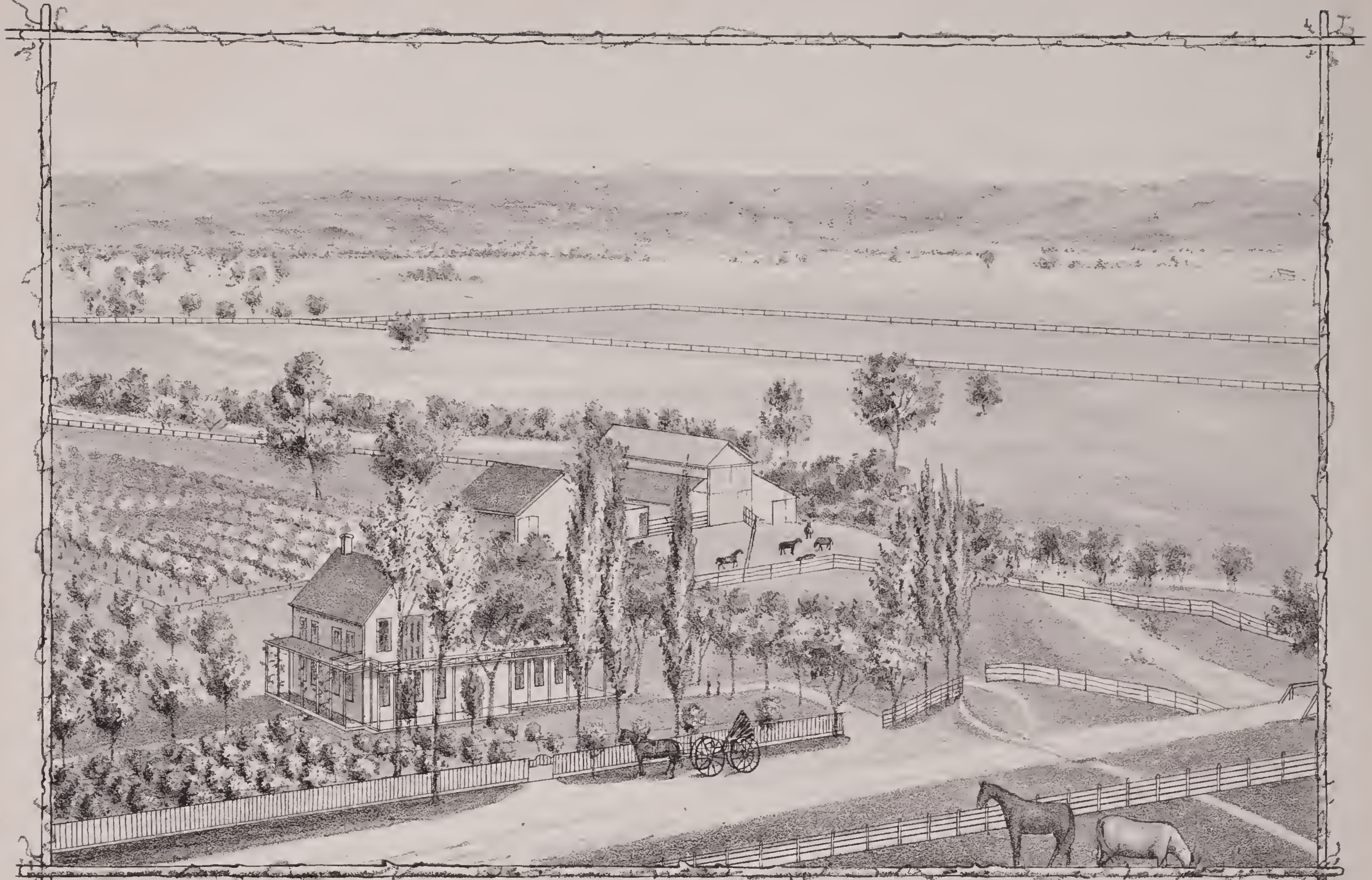
Through industry and diligence, Mr. Burnett succeeded in acquiring the valuable property he now possesses. His property is located within two and a half miles of Tulare City, and seventeen miles of the county seat. The railroad runs through. Its consists of 700 acres, highly cultivated land, which will bring about thirty-five bushels of wheat or barley per acre in good seasons. An orchard thereon contains 140 fruit-bearing trees, amongst which we find most all kinds of fruit. His stock consists of 350 head of fine sheep, 13 hogs, and about 30 horses.

Mr. Burnett married, in 1882, Miss Floretta F. Churchill, a native of De Kalb County, Illinois. He is now the father of two children, named: Frank Walter and Myrtle Maud Burnett.

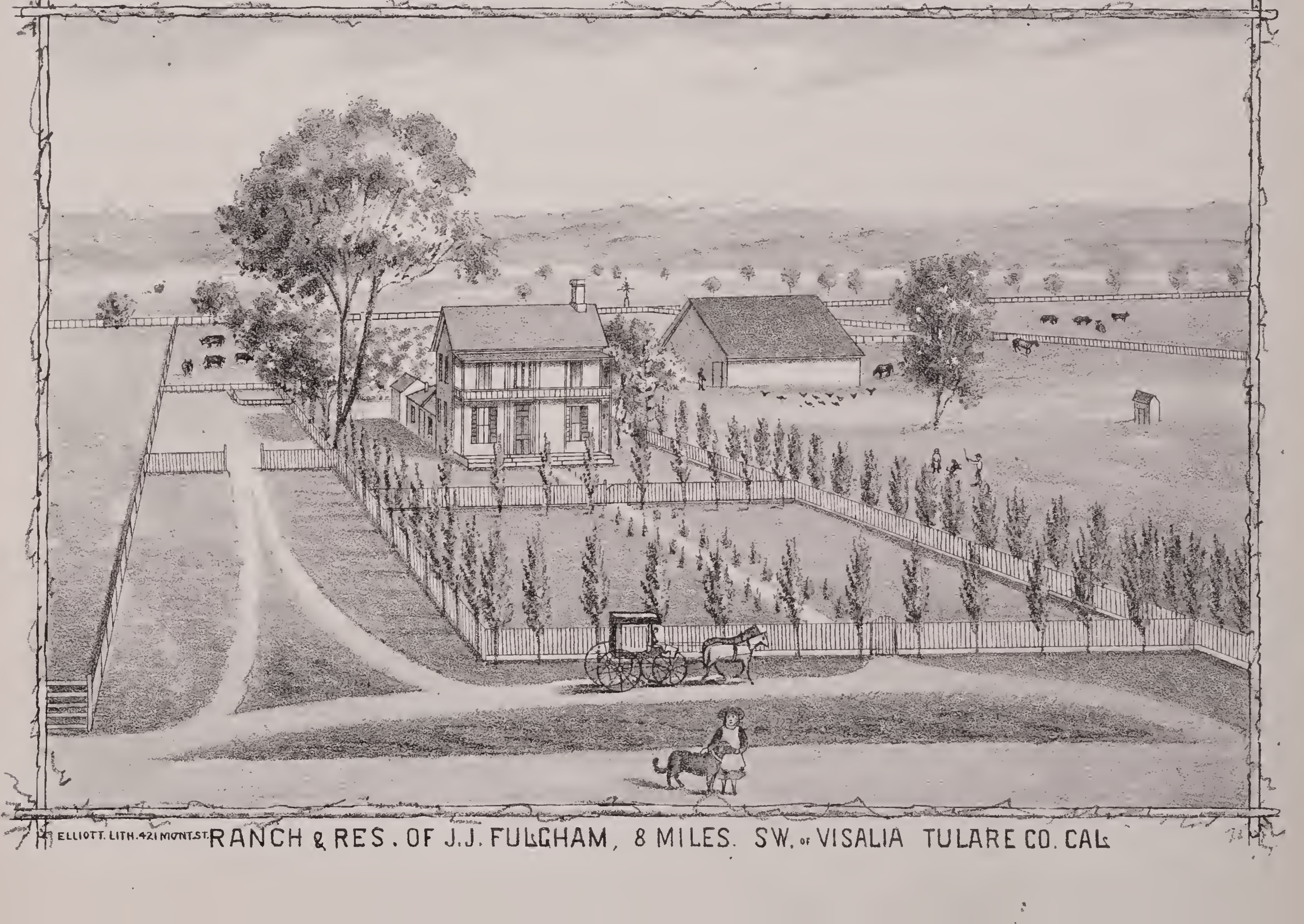
S. M. Gilliam was elected Supervisor of his district November 7, 1882. He is a Democrat in politics. He has often represented his district in local conventions, and has been Trustee of Porterville School District for six years. He was a delegate to the late San Jose State Convention.

He was born in Dallas, Polk County, Oregon, in 1854. His father was Rev. S. F. Gilliam. The subject of this sketch came to Tulare County in 1860, when only six years of age, and really is a native of Tulare County and identified with its interests. His father being unable to assist him, he was dependent upon his own exertions for an education and a start in life. He used to teach school in winter, and work as a laborer in the harvest field. He has attained his present standing by strict integrity and industry.

His father emigrated from Oregon in 1859. He brought cattle to this county in July, 1860, and settled seven miles



FARM RES. OF W. G. PENNEBAKER, ON OUTSIDE CREEK, 8 MILES S.E OF VISALIA, CALA.



ELLIOTT. LITH. 421 MONT. ST. RANCH & RES. OF J. J. FULGHAM, 8 MILES. SW. OF VISALIA TULARE CO. CAL.

east of Visalia near what is now Farmersville. But at that time the country was only sparsely settled, and there was no town there then. They lived there until the spring of 1867, and then moved to Tule River. They settled two and one-half miles from Porterville, which at that time consisted of a hotel and store. Young Gilliam helped his father on his farm until eighteen years of age, when he began teaching school, which he continued until he accumulated enough of means to enable him to attend college. He graduated at Heald's Business College, San Francisco, April, 1874, after which he engaged in book-keeping until 1876, when he went into the mercantile business on his own account. He started with a small stock of notions, and kept the post-office and Wells, Fargo, & Co.'s Express, and continued in this manner until 1881, when he enlarged business by entering into copartnership with Mr Guy Gilmer, under the firm name of Gilliam & Gilmer. Their stock consisted of general merchandise.

W. G. **Pennebaker**, who has had his fine farm sketched and represented among the homes of Tulare County farmers, furnishes the following descriptive narrative, which we publish entire:—

"I was born in Owen County, Indiana. In 1844 my parents moved to Putnam County, where they lived until November, 1846, when they removed to Des Moines County, Iowa, where they resided until August, 1850, when they emigrated to western Iowa, and located in Wayne County, fifteen miles northeast of Congdon, the county seat. This was a new country, with a settlement about every five or ten miles on the public highways and in the most favorable regions. The county settled rapidly, and the date of 1860 found heavy settlement all over the more fertile regions, with churches, schools, and prosperous little towns and villages in the more densely populated parts.

"In 1862 I enlisted in the Federal service, in the Fourth Regiment of Iowa Infantry Volunteers, Col. J. A. Williamson commanding. After rendezvousing at Camp McClellan, Davenport, Iowa, we started for Helena, Arkansas, to join the command which had preceded us to that point, arriving there in November of the same year, and went into active service almost immediately. Was with the command on the Cold Water expedition, at the battle of Haines Bluff, on the Yazoo River, above Vicksburg. On New Year's, 1863, was in the battle of Arkansas Post; again returned to Milliken's Bend, opposite and a little above Vicksburg, on the Louisiana side. Remained there until March, and made one raid after General Forest, starting from Greenville, Mississippi, and marching in the direction of Deer Creek.

"I was afterwards present at the siege of Vicksburg, battles of Lookout Mountain, Mission Ridge, Taylor's Ridge, Resaca, and all the engagements that the Army of the Tennessee was in, including Atlanta and Sherman's march to the sea; and back through the Carolinas to Raleigh, where we were temporarily encamped when Lee surrendered, and peace was declared, when we took up our line of march for Washington City, where we arrived in time to take part in the review, on May 16, 1865, after which we were transferred to Louisville, Kentucky, where we were mustered out, and retured to Davenport, Iowa, in August of the same year. Receiving our discharge papers, we again started for our homes, from which we had been absent so long.

"In 1867 I concluded to emigrate to California, and on the 20th day of April, 1868, started overland with my family, accompanied by my parents, now eighty years of age, and a brother and family who had formerly resided in California, but was East on a visit; also a brother-in-law, James Peck, and family, and F. Brown and wife. Our route lay through the southern tier of counties of Iowa; and crossing the Missouri River at Nebraska City, started for the Platte River, by way of Lincoln, Nebraska; arriving at Fort Kearney, on the Platte River, where our stock, consisting of horses and mules, were stampeded at 9 P. M., May 8th. At 3 A. M. of the 9th, I started in pursuit, in company with William Boswell, W. H. Peck, and T. Brown, following our stock to the crossing of Beaver Creek, 130 miles, which they had made in eighteen hours, about eight miles per hour. We made the same distance in twenty-three hours, without food or rest; and, recovering our stock, joined our train. On the 15th we took up our line of march again, following the overland road to Salt Lake City, arriving there June 23d, and was present at the funeral of Heber Kimball, June 24, 1868. Leaving the city on the 26th, we again resumed our march, arriving at Carson City, thence to Dayton, Silver City, and crossed the summit of the Sierras.

"We reached Visalia, Tulare County, August 6, 1868, after a tiresome journey of three months and a half. I immediately engaged in the business of raising sheep, which I pursued for eight years with success. In 1871 I located on my present farm, eight miles southeast of Visalia, and have been engaged in farming, raising hogs, horses, and some cattle.

"I have 730 acres of land, and cultivate about 320 acres. Yield of wheat per acre, about twenty-five bushels; barley, thirty; alfalfa, two tons per acre at each cutting. I have about 500 fruit trees, 400 grape vines; grow apples, peaches, plums, pears, apricots, nectarines, prunes, cherries, figs, also almonds and blackberries. The character of the soil is sandy loam, with good water privilege, both from ditch and also from the natural channel of Outside Creek, which runs one-half mile through my farm, affording a bountiful supply of stock water the entire year.

"Was married February 26, 1859, to Miss Louisa J. Jennison, of Shelby County, Indiana. We have eight children—four boys and four girls—whose names, in their order of birth are: Sarah E., Laura, William Sherman, Bloom, Leonora, Willie, Carl, and Cora Pennebaker."

FORREST G. JEFFERDS was born in Brownsville, Piscataquis County, State of Maine, August 26, 1829, and was the son of Alpheus and Rebekah Jefferds, who moved from Brownsville to Laxcroft, in the same county, when he was two years old, where he lived until he was sixteen years of age. He then got the consent of his father to leave home and take care of himself, and went to Lowell, Massachusetts, where he found work in the Hamilton Point Works, and worked until the war with Mexico broke out, when he enlisted in Company A, Massachusetts Volunteers, to serve during the war, and went to Mexico.

When the war closed, he returned with the regiment to Boston, and was discharged July 24, 1848. He then learned the trade of making gas-meters for the Boston Gas Light Company in Boston.

In August, 1851, he started for California, by way of the Isthmus of Panama; went by steamer from New York to Chagres (this was before the railroad was made across the Isthmus); went up the Chagres River in a canoe to Cruces, and across from there to Panama on a mule; was ten days on the Isthmus. He went from Panama to San Francisco on the old steamer *Republic.* Twenty-one miles below San Francisco, the steamer ran onto rocks, in the fog, and stove a hole in her, and the water rushed in and put the fires out. The fog soon cleared up, and passengers could see the shore, which was about five miles away. The purser went ashore in a boat, and with horses went to San Francisco for a boat to come and take passengers away. The vessel ran on the rocks about 11 o'clock A. M. The next morning the steamer *California* came. The passengers had worked all the time since the steamer struck, pumping water to keep the vessel afloat. They expected the steamer that came would take them aboard, but instead, threw a rope and fastened to the wreck, and kept the passengers bailing water until they got to the city, where they arrived on the 5th of October, 1851, twenty-one days from Panama and thirty-eight days from New York.

In a few days he went to the mines in Nevada County, and lived near Nevada City, on Gold Run, about one year; then moved to Rough and Ready, same county. He had some very good claims on Gold Run, also on Randolph Hill near Rough and Ready. In 1855 he moved to Timbuctoo, Yuba County, where he was an owner in a hydraulic claim known as the "Babb Claim," and worked the claim until 1861, and made some money. He came near losing his life in it—was caved on and taken home for dead, but brought to life. He was covered several feet deep with earth and water, was badly bruised, and had a leg broken.

In 1860 he came to Tulare County and bought the land on which he now lives, but did not move here until October, 1861. He had some fencing done, and fruit trees and grape vines put out in 1863.

He had all the fruit and grapes wanted for family use, and raised wheat, barley, oats, corn, sweet and Irish potatoes, and almost every variety of fruit. At one time he had over sixty varieties of grapes. He has on the farm now about 40 head of horned cattle, 150 sheep, 5 horses, 20 hogs, 35 acres in alfalfa; has 316 acres of land, seven miles from Visalia, same distance from the railroad, and one-fourth of a mile from Farmersville Post-office. A school house is on a corner of the farm, one-fourth of a mile from the house, and church is held in it every Sunday.

He was married to Miss Zanetta D. Whitney in 1853, who was a native of Waltham, Massachusetts; had three children: Edward M., Minnie, and Netta Jefferds. His wife died in 1868. In 1869 he married Mrs. Nellie Reed, widow of Tilden Reed, and they have one daughter, Nellie, now ten years of age.

In 1871 he was elected County Assessor of Tulare County, was re-elected several times, and held the office eleven years, until 1883.

JOHN S. URTON.—No one has been more prominently connected with the work of laying out, by complete and accurate surveys, the present irrigating ditches, not only of the Mussel Slough District, but of a large part of Tulare and Fresno Counties, than the subject of this sketch. John Samuel Urton was born October 13, 1844, in Jefferson County, Kentucky, on his father's farm, twelve miles east of Louisville, on the old turnpike road to Lexington. He received his education from the neighborhood schools, and at Forest Academy, in charge of the noted teacher, Burr H. McCown. After completing his studies at this noted school, he began the work of a civil engineer at the age of twenty, on some of the railroads of his State, under Henry Nettelroth. In 1870, he went West and was engaged for three years in Government employ, surveying the public domain in Kansas and Indian Territory.

In the spring of 1873, Mr. Urton came to California, and after spending several months in San Francisco and in traveling over different parts of the State, he located in the Mussel Slough country in January, 1874, and has since that time been fully identified with the interests of Tulare County. His first work in engineering here was during the following summer on the Settler's Ditch taken from the north bank of Cross Creek, one of the lower channels of Kaweah River, about two miles above the railroad crossing, and running through the eastern portion of his district, with a length of about eighteen miles. This ditch being satisfactorily completed in the fall of 1875, he was employed that fall on the Lakeside Ditch, taken from the same stream some six miles below the point of diversion of the Settler's Ditch. This was finished in the winter of 1875 and 1876.

In the fall of 1875 he also took charge of the People's Ditch as general superintendent and engineer, and this important work was completed the following winter. This ditch, having its head-gate on the south bank of King's River, a mile below the railroad bridge, near Kingsburg, has a capacity of 150 cubic feet per second, and is not only the largest, but is generally considered the best located, most thoroughly completed, and, all things considered, the most valuable canal that irrigates the noted and productive Mussel Slough lands. Its entire length, including its three main branches, is 45 miles, enabling it to cover a larger area than any of the seven ditches of this region. While this work was progressing, Mr. Urton also surveyed the Emigrant Ditch, Fresno County, which takes its water from the north bank of Cole Slough, two miles below its source. The latter is the most northerly channel of Lower King's River, leaving the latter a mile and a half below the Kingsburg Bridge. This ditch, with a length of 15 miles and a westerly course, irrigated the Wild Flower District.

During the year from the fall of 1876 to 1877, he was engaged in surveying the Kingsburg and Centerville Canal in Fresno, which heads on the north bank of King's River, a mile below the Church head-gate, and has a capacity of 150 cubic feet, and a total length of about 60 miles. Since then, he has been constantly employed in various important irrigating enterprises, such as the Kaweah and Tulare Canal, Wutchumna Canal, and a number of smaller ditches in Tulare and Fresno Counties.

His last and most extensive work is that on the large '76 Canal! This truly great enterprise was begun by his preliminary surveys in April, 1882, and the main portion of it was completed sufficiently to receive the water of King's River by the middle of May, 1883.

During these thirteen months, an amount of work was accomplished that far exceeds any similar enterprise in the State. This mammoth canal has its point of diversion on the south bank of King's River, where that large stream debouches from its deep cañon in the Sierra Nevada, thus surveying its water supply higher up than any of the numerous canals from that river. For the first five miles it uses a natural channel of the river to its huge head-gate; it is 100 feet wide and furnished with 20 five-foot gates. For the next eight miles, sweeping around the western bases of Bare Mountain and Campbell Mountain, the chief artificial portion of the canal has been constructed through gravel beds, sand-stones, conglomerates, marls, and dry bogs, with a uniform width of 100 feet on the bottom, and a uniform fall of 18 inches per mile. The lower levee, the main and sometimes the only one along the mountain bases, is eight feet wide on top, furnishing a good wagon road 20, and even 26 feet high in places, and varying in width of base from 40 to 100 feet. The construction of this vast work required the displacement of not far from 500,000 cubic yards of earth, at an expenditure of about $80,000.

This canal, with its large capacity of 700 cubic feet per second, discharges its vast volume of water at present—after conveying it by means of an immense dam across Wahtoke Creek, 300 feet long and 26 feet high—into the old channel of Button-willow Creek; thence after a meandering course of 25 miles into Cross Creek, and thence to Tulare Lake, about 50 miles from its source.

Though all of the "'76 Canal" yet constructed, and all of the large tract of its upper lands to be irrigated, are in Fresno County, it is designed, and has the capacity to irrigate a vast acreage of first-class lands in Tulare County, east and north of the Southern Pacific Railroad; and one of its ultimate objects is to consolidate into one system all of the numerous irrigating ditches in the northern and western parts of Tulare County, including those in the Mussel Slough District.

To Mr. Urton's experience and energy as a competent engineer is to be ascribed a large part of the credit due to the enterprising company undertaking this large work, for its rapid execution and its ultimate success.

JOHN SHELLEY ROBINSON, of Grangeville, was born in Fayette County, Indiana, April 20, 1830. His early years were spent on his father's farm, and his only advantages of education were those afforded at that time by the country schools. In 1850 he removed to Rush County in the same State, and there, on October 2d of the following year, he was married to Miss Eveline Thomas, his present wife. Soon after his marriage, he went to Monroe County, Iowa, and after farming there several years he removed with his family to Cooper County, Missouri.

In the spring of 1857, after two years' residence there, he started across the plains for California, with a party of emigrants, bringing his family and household effects in an ox-wagon, or by "ox express," as he terms it. In a trip of four months over the old emigrant route, their party had no trouble with the Indians. They arrived in Sacramento County on the 25th of August, 1859. That fall he located in Sonoma County, four miles southwest of Santa Rosa. After engaging in farming there for a year, he next settled in Lake County in the fall of 1860, the year in which that county was organized. In 1861 he removed to the neighborhood of Fairfield, Solano County, and located on 160 acres of the Suscol Rancho. He was one among some 300 settlers who were dispossessed in 1865, by a special Act of Congress.

Losing the home he had sought to secure, he next went to Santa Cruz County, and lived for three years near Soquel, engaged in farming and teaming. In 1868 he tried farming near Hollister, and for two successive years lost his crops.

In 1871, he moved eastward, and first crossed the Coast Mountains to Los Banos, Merced County, and after trying unsuccessfully to farm in that then dry and unirrigated region for two years, he brought his family to Tulare County, locating on some of the land he now owns near Grangeville. The first year he sowed only twenty acres of wheat, spending much of the time in working on the irrigating ditches, which were to be the salvation of the Mussel Slough lands, and which were constructed by his fellow-farmers and himself by a hard struggle and well-known privations, without any capital but the labor of themselves and teams. He aided in making both the Last Chance and the Lower King's River Ditches.

During the succeeding ten years of his residence here, he has farmed extensively, depending chiefly on wheat. Of this fine crop, he sowed, in 1875, 300 acres; in 1876, 700 acres; in 1877, 1,000 acres; in 1878, 1,100 acres. He and his son Wesley and two sons-in-law have since continued to farm annually 1,200 acres, all in wheat but 100 acres, devoted to alfalfa, pastures, and orchards.

In 1878, their 1,100 acres of wheat yielded them 33,000 bushels of the very best grain. Their average yield for the ten years is not far from 30 bushels per acre, ranging in different years from 25 to 50 bushels on various fields, according to season.

His land, which was carefully selected by him, is some of the best of the now justly noted Mussel Slough lands—a dark sandy loam, comparatively free from salt grass, and alkali spots. He now has a thrifty young orchard and vineyard, producing annually, in great abundance and of finest quality, peaches, apples, pears, plums, apricots, almonds, grapes, and blackberries.

In stock, he has raised mainly what is needed for home use, except hogs, of which he has in some years sent to market as many as 200 head.

In 1881–82, he invested about $15,000 in property in Los Angeles County, twelve miles southeast of the city of Los Angeles, where he proposes to establish a dairy ranch.

Mr. Robinson has seven children living, four sons and three daughters, two of the latter married, Mary E. to John Malcom, and Martha E. to F. M. Parrish, who are farming near Hanford. His oldest son, John Wesley Robinson, is farming near his father's home place. Mr. Robinson's entire family are at present farming 1,342 acres, in the Mussel Slough country and in Los Angeles County. Miss Emma, his youngest daughter, is attending the University of Southern California, at Los Angeles, as are his second and third sons, Frank E., and Edwin S. Robinson. His youngest son, Chester, now seven years old, is at home with his parents.

Mr. Robinson is well known throughout Tulare County as a type of one of its most successful farmers.

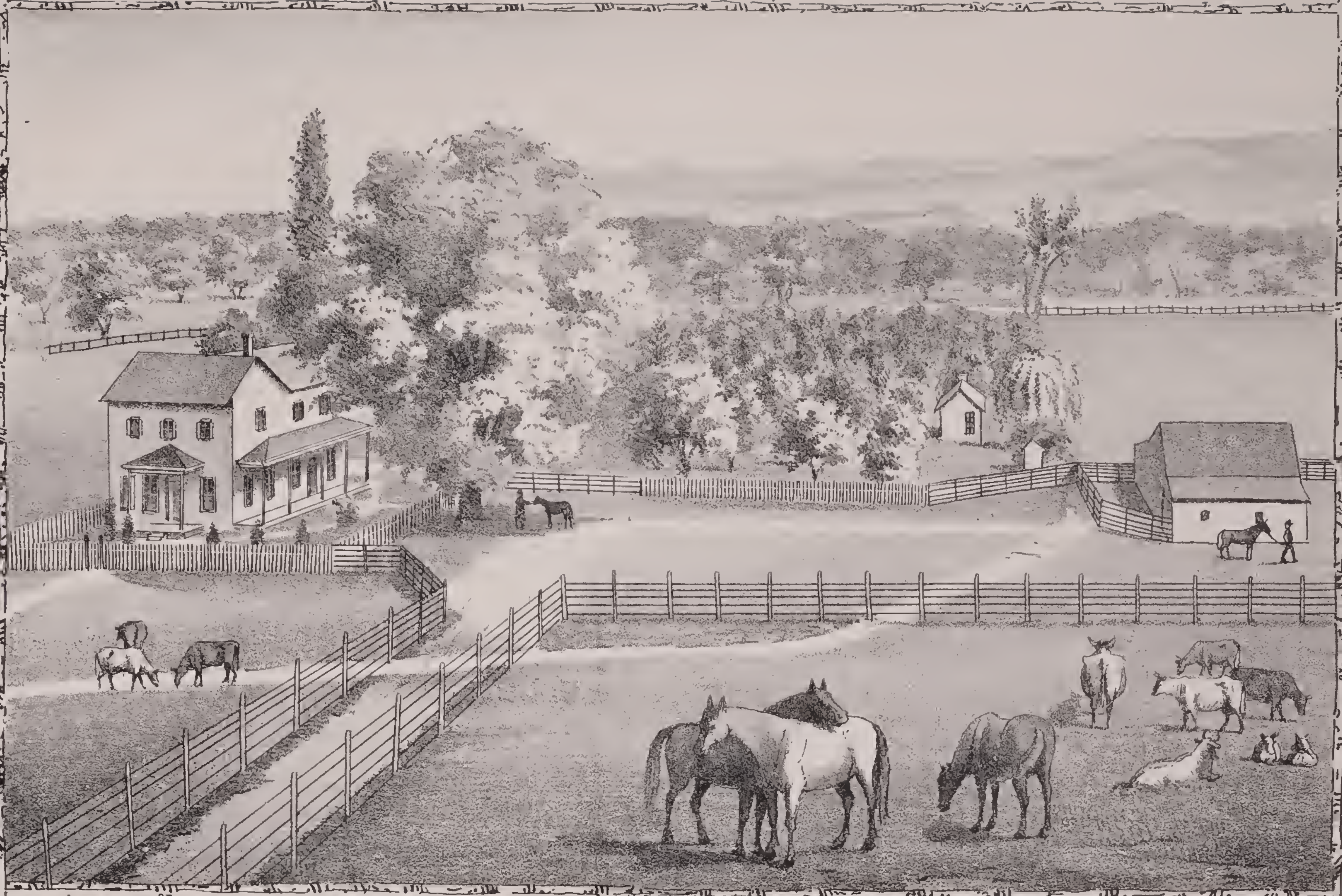
H. P. Gray furnishes us with the following interesting autobiography of his life, which we give in full:—

"I was born in Wayne County, Pennsylvania, in April, 1841; moved to Rock County, Wisconsin. This I believe was in 1847. Then the Indian trails were quite fresh in that county. After a stay of about six years, we emigrated to the then Territory of Minnesota. On our settlement there we found the Indians and trappers our only neighbors. Our stay in that State lasted for about seven years, at the end of which time, at the age of about eighteen, with my father, A. W. Gray, now of Lemoore, and two brothers, I started for Pike's Peak. After wending our way for many hundred miles in that direction, meeting many returning teams whose men were often hollow-eyed and hungry-looking, we turned our course towards the sunny land of California. Made the journey in three months with an ox-team, after being menaced by Indians and Mormons more than once. Arriving at Placerville, or old Hangtown, my father left my next older brother and myself after handing us $20.00 and assuring us that we had a splendid prospect before us, and while in tears on his part, he mounted the stage for Sacramento, to be off on the next steamer for San Francisco, thence home, we loaded our backs with blankets, flour, bacon, sugar, and other eatables, as also frying-pan, coffee-pot, together with other things necessary for the support of life, and with the "splendid prospect" before us, we hied away to the hills—away in pursuit of the nugget and gold-dust.

"But our nugget was small, and the gold-dust scarce, and after sufficient stay in the mountains, now in the shaft, now over the sluice boxes, we settled with our good station merchant by giving over what cash and personal effects we possessed for the supplies we had received, and abandoned the log cabin in the gulch forever, and turned our face toward the valley, without acquaintances or friends, sometimes with money, but oftener without, taking long stretches across the State in pursuit of this or that and always something better. But let it be understood not as a tramp, for every man in those days would scorn to take anything though he were hungry that he could not pay for. And with my experience on the farm, in the lumber woods, on the river drive, in the army under the good flag of the Union, as a freight teamster to the mountains, or whatever betided me, I learned to paddle my own canoe.

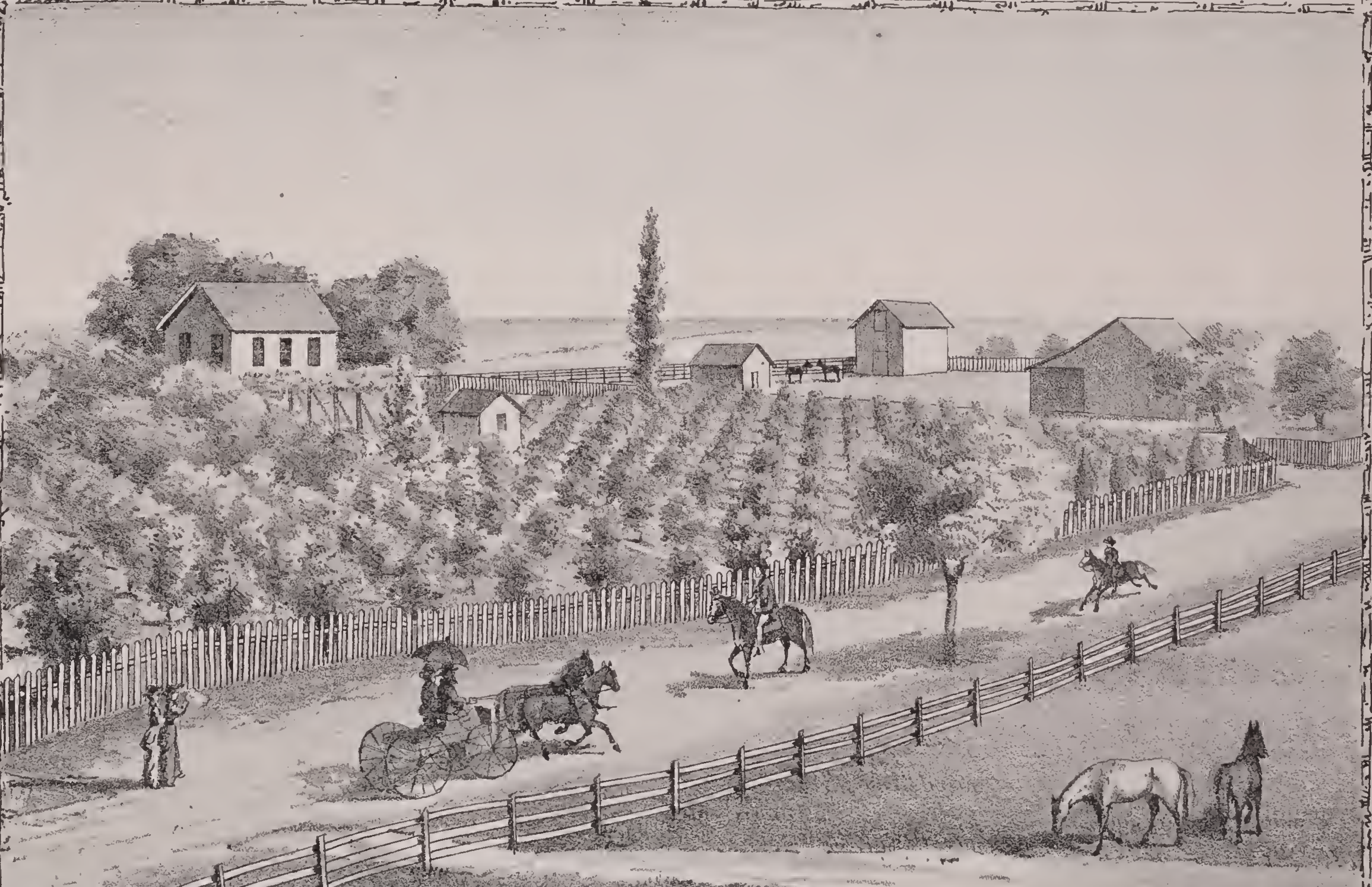
"In the fall of 1869, I thought to seek for a location, where the best opportunities for securing a home had not already passed away as in my then present locality, San Joaquin County. And when on my journey southward I broke through the Kingston timber, and looked upon the plain of the 'Mussel Slough' country, with its rich alluvial soil covered with filaree and clover upon which countless numbers of cattle, sheep, and horses were subsisting, with its surrounding belts of timber and King's River skirting the western side, I proclaimed the prospects good and located upon the homestead here shown, and taking up adjoining lands, we, that is my brother Reuben and myself as partners, prepared for farming on quite a large scale. The stock men who were then kings and princes in this section, called by more than once and insinuated that it never rained in this county.

"We supposed that if they knew that our errand here was to make two blades of grass grow where but one grew before, that we were the ones to be benefited, and with this consideration we let the matter drop out of mind. However, during the next two years few drops of rain fell, and so little grass or grain grew that more than one set of settlers abandoned this



FARM & RESIDENCE OF F. G. JEFFERDS, NEAR FARMERSVILLE, TULARE CO. CAL.

ELLIOTT LITH. MONT. ST.



ELLIOTT LITH 421 MONT ST.

"PLANO ORANGE GROVE" RESIDENCE OF DEMING GIBBONS, PLANO, TULARE CO. CAL.

locality during that time, and the bleaching bones of the once beautiful herds of stock were visible everywhere. Those who had withstood this trying ordeal, began to realize that irrigation was necessary, and that with it, this locality could be made to blossom as the rose.

"Then every man except those who never do their part under such circumstances, gathered to the banks of King's River, with fat teams and poor teams, and some with none. Some with grain feed and some without save the grass on the banks of the river. Commodious ditches were built near or quite across the plains of Tulare Lake at an enormous expense. The result was that mortgages fell thick and heavy upon the homesteads of the settlers, falling so heavy on many that it wrested the homes from those whose ambition and energy had made the country. Your humble contributor was not exempt from some of this experience which, when combined with other evils that overtook him, brought somewhat of distress upon his affairs. The question now arose concerning the repeal of the old fence law. Our own interest caused us to take something of an active part in this agitation.

"Hon. Lipton Lindsy, of Visalia, was our man and we worked in and out of convention for his election to the State Senate. This was a time when even Democrats forgot party fealty, and voted independent for local interest. After this election, we in common with all farmers rejoiced in the repeal of the fence law. This was a severe shock to the finances of the stock interest, but the county soon more than regained its wonted prosperity under the careful hand of the husbandman. But what of our experience with farming with irrigation?

"In 1875 I sowed 320 acres of alfalfa, then probably the largest field in the county. Our farming at this time aside from alfalfa consisted in wheat culture together with adjoining pastoral lands, altogether about 2,000 acres. In the winter of 1877, we wintered about 1,200 sheep, mostly fat wethers, upon the farm here shown, which was the alfalfa farm. Sustained that winter in our stock interest a loss of $10,000, owing to a crash in the sheep interest. This severe loss, with others previous, involved us to the amount of $23,000. Calling our creditors together and showing them the situation, they signed a contract giving us further time for payment without molestation. But afterwards our lands were all sold out by the Sheriff under a foreclosed mortgage, but were all redeemed at the last moment of time.

"In the summer of 1877, upon this farm, was raised alfalfa seed, hay, and grazing to the value of $14,790, after giving one-fourth beside this for the harvesting and tending of the same. This was a welcome income considering our many losses. About this time my brother and myself dissolved partnership, except in our unsettled liabilities. And with the natural productiveness of the soil and the benefit of irrigation, we have been enabled to overcome the financial difficulties that once surrounded us.

"In 1881 I sold all the land except this farm of 330 odd acres shown in the sketch. It is located from railroad depot three miles; from school, two and one-quarter; church, three; post-office, three. About one-fourth of the farm is devoted to vineyard and orchard of pears, prunes, apricots, peaches, and apples. The grapes consist wholly of the best kind of raisin grapes.

"In 1878 married Miss Emma C. Hurd, a native of Jersey County, Illinois, and a teacher by profession. Two boys enliven our household, Douly Clifford and Dallas Hurd. And now in conclusion of these lines I will say that after all the changing experience of my previous life upon this homestead, with her who is the brighest and best, with our children ever near, busy with the affairs that concern me, with the Bible as the guide of life, I willingly bide my time till the Lifegiver come, or I be called to rest."

THOMAS JEFFERSON MCQUIDDY was born in Woodford County, Kentucky, on the 6th of March, 1828. His father was of Scotch descent; his mother belonged to an old family of the State of Virginia. When he was twelve years old, his parents removed to Bedford County, Tennessee, where he received a useful English education at Bexed Academy, a school under the control of the Campbellite, or Christian Church, of which he became a member when thirteen years of age, and he has ever since continued to be actively interested in its operation. Eight years afterwards, or at the age of twenty-one, Mr. McQuiddy married Miss Jane M. Ruth. Ten children were the fruit of this union, of whom six are living.

Soon after their marriage the young couple removed to northwestern Missouri, where, in 1859, Mr. McQuiddy was elected Sheriff of Nodaway County, on the Democratic ticket. At the outbreak of the war, after having first opposed secession, he joined the Confederate cause, and served as Major of cavalry. In the winter of 1863, he was arrested in Tennessee, while on secret service, but managed to escape. His wife died soon afterwards, and in 1864, Major McQuiddy left the army to look after his children, who were with his father in Tennessee. In 1866, he was married to Miss Mary J. Hoffman, his present wife, a native of Tennessee, of German descent.

For the next six years he remained in charge of his father's farm until he removed to California by the overland railroad in 1874.

He settled on railroad land, in the Mussel Slough District of Tulare County, and during the past nine years has assisted his fellow settlers in the attempt to secure their homes and his own, on the basis of their occupants being actual settlers. Failing to accomplish this by negotiations with the railroad company, he has led in a systematic and determined opposition to the company's claims by all legal means.

In 1880, this led to his indictment, in company with eight others, for their alleged resistance to United States Marshal

Poole. Major McQuiddy took measures to escape arrest. Five of his comrades, who surrendered themselves to the authorities, underwent trial in the United States District Court at San Francisco, and were imprisoned for eight months in the San Jose jail.

Major McQuiddy succeeded in evading arrest for two years, and in the campaign of 1882, he was made the candidate of the Greenback Labor Party of California, for Governor, by a unanimous vote, being their first candidate in California for that position.

When returning from the State Convention in San Francisco, where he had remained openly for some days unmolested, he was arrested at Gilroy by a Deputy Marshal, on the old indictment upon which he had previously escaped arrest. His trial before the United States Court at San Francisco, was set for November 27, 1882, but went over to the January term, and has since been indefinitely postponed.

It is a fact worthy of record that when Marshal Poole, Deputy Dunlap, and their assistants, visited Major McQuiddy's ranch near Hanford in May, 1881, to dispossess him and place a railroad representative in charge of the land, Major McQuiddy and his family were absent, but on the back of a pamphlet placed at the gate these words were found written:—

> "When courts are so corrupt that I have to leave my home to ex-convicts to satisfy the greed of a thieving corporation, then I bid adieu to this Government, and take my chances with those who know nothing of civilization.
>
> (Signed) T. J. McQuiddy."

It is also worthy of note, that Mr. O. C. Jackson of Sacramento, who was formally placed in possession of Major McQuiddy's ranch, immediately left the place and the county with the Marshal's party, and has never returned. Meanwhile, Major McQuiddy and his wife, when they returned home that evening from a visit to a neighbors, found everything in the house about as they left it, a large party of men with their wagons and teams having returned whatever had been removed, soon after the Marshal's party left, and he has remained in undisputed possession ever since, that is, for more than two years.

When, in 1882, he became the Greenback candidate for Governor, the usual flood-gates of political abuse were opened upon him, and his motives were impugned. Even the preposterous and utterly groundless charge was brought against him, that he had compromised with the railroad company and bought his land of them; and that too, although it was well known that the railroad managers had positively refused to sell to him or any one else, the claims of himself and several other leaders in this determined resistance to what they deemed to be railroad aggression, and wrong. Following is an extract from his published answer to some of these aspersions, and they indicate the spirit which has animated him:—

"I will give some reasons why I am a candidate: I am a native born American citizen, and have a perfect right to hold office, if this is a free republic. And I had the manhood to stand by my home which I had made comfortable with years of toil and privations. I refused to surrender it, and, as earlier in life, when called upon by the Governor of the State in which I lived, I did not hesitate to step forward to defend what I believed to be right, so now I do not hesitate to defend what I think is right. The National Greenback Labor Party is a party with both National and State organization, and with a platform of sound principles that I indorse in full. They had a right to hold a convention and make nominations, without any collusion with any party or persons, which they did. They gave to me without my solicitation, the nomination for Governor, with the prison bars before me, and emissaries in both the old parties opposing me and impugning my motives. They did this believing that I had the manhood to stand by and vindicate the principles of the party; and this I shall do, God being my help. I do not hesitate to vindicate what I believe to be right, and to show the corruption of party leaders."

Major McQuiddy's most intimate friends and all fair minded men who know the facts in his case, are sure that no man has ever been truer to any cause than he has always been, and continues to be, to the interests of his fellow settlers in their heroic struggle to secure their homes on an equitable basis.

John W. Loyd is in the mercantile business in Porterville in connection with J. F. Field. He was born in Arkansas and came to California when a boy with his step-father and family, and settled near Napa. He came to Tulare County in 1866, and has lived there ever since.

He served as a private in the United States Army during the War of the Rebellion, and was stationed at Visalia and afterwards was in Inyo County to quell Indian disturbances. He relates a case of Indian character when one was captured by them, and who would refuse to answer questions even when threatened with shooting, and a gun cocked in his face he failed to flinch, but when his own bow and arrows were brought to bear on him he yielded.

After this Mr. Loyd engaged in the sheep business but failed to make it a success. He then run a stage line with the mails from Glenville, Kern County, to Visalia for about four years, from 1878 to 1882.

He has thirty acres of land, of a sandy loam well adapted to fruit, corn, or grain of any kind. It lies at south end of Tule Bridge at what was the old town of Vandalia.

He married Miss Jennie Campbell in 1869, who was a native of Santa Clara County. They have six children, named: Ozro, Thomas, Mimi, Edgar, Webster, and Babe Loyd. The family live at the farm.

In 1882 he was nominated for Sheriff of the county by the Republican Party, was indorsed by the M. E. Church, Good Templars, Working Men's Order, Christian Alliance, etc. His chances looked good for election, but he was quite badly beaten by Mr. Martin, of Mussel Slough, the Democratic nominee. He has since that engaged in mercantile business as first related.

John H. Shore came from Washington, Missouri, where he was born, September 6, 1841, and resided there until 1852, when he came across the plains to the land of gold and settled in Santa Clara County. He went to Oregon and Washington Territory in 1862, and to Sinaloa, Mexico, in 1863–64. Came to Fresno County in 1864, where he resided ten years. He moved to Tulare County, in 1874, where he at present is located, and is engaged in the business of stock-raising and general farming. He owns 500 acres of land, and raises hogs principally, generally having 200 or 300 at a time.

Mr. Shore was one of the Board of Supervisors of Tulare County in 1880 and 1881.

He married Miss Susan Haun in 1867, also from Missouri. He has seven children, named Emma Eugenia, born March 23, 1868; Elton Eugene, December 6, 1869; Isabella Jennie, June 21, 1872; Louis Henry, June 24, 1874; John Elias, August 5, 1876; Ellen Susan, August 17, 1878; Seth Clarence, December 16, 1880.

James William Abert Wright was born in Columbus, Lowndes County, Mississippi, July 28, 1834. His father was Rev. David Wright, of the Presbyterian Church, a native of Massachusetts, who at an early age went to the wilds of Mississippi about the year 1820, as a missionary to the Choctaw Indians, at Mayhew Station. His mother's maiden name was Eliza Abert. She was born at Shepherdstown, Virginia, and had accompanied her brother, afterwards Col. Charles H. Abert, to Columbus, among its earliest settlers. In 1840 his father died, and having the misfortune to lose all his property, including several valuable slaves, by the crash of the "Wild Cat" Banks in 1837–38, he left his widow penniless to provide for herself and their only surviving child as best she could. For fourteen years, till 1854, she gave music lessons in Pickens County, Alabama, and in Columbus, thereby securing a support and a comfortable home in the latter place, and, with some aid from friends, she laid the foundation of a good classical education for her son. She sought constantly to instill into him habits of industry, having him do occasional farm work, and when fifteen years old, he spent his summer vacation of three months at work in a cabinet shop, the vacation of the next year being occupied by writing in the Chancery Clerk's office, while his muscles were farther exercised by garden work, and by chopping all the wood for home use.

In January, 1853, he was sent, by assistance of relatives, to the noted high school of Prof. Henry Tutwiler, at Greene Springs, Alabama. He became assistant teacher there from October, 1854, to July, 1855, thus earning most of the means necessary to complete a college course. In August, 1855, he entered the Junior Class at Princeton, New Jersey, and graduated in the class of '57—sixty members—as valedictorian. That fall he returned to Alabama, and having chosen teaching above all other professions, he assisted Professor Tutwiler continuously in his school, until the second year of the war. In August, 1859, he married the Professor's oldest daughter, Miss Margaret Tutwiler The fruit of this union is four children living, a daughter and three sons.

Although in the beginning of our fierce civil conflict, he voted with a majority of the voters of Alabama against secession, when the inevitable war came and had lasted for a year, and when it was incumbent on every able-bodied man on both sides to take up arms, he raised a company in the spring of '62, under a commission from Jeff. Davis. He was elected Captain, having prepared himself for a soldier's duties by becoming a cadet at the University of Alabama, in Tuscaloosa, and sharing their camp life in the summer of '61.

Becoming Company H of the Thirty-sixth Alabama Infantry, his command took an active part, until its surrender, May 4, 1865, when only six men were left in his company, under Generals Buckner, Bragg, Joe Johnston, Hood, and Dick Taylor, in their rough campaigns and numerous battles in Tennessee, Georgia, Mississippi, and Alabama. Being severely wounded in the right hip, at the battle of Missionary Ridge, November 25, 1863, Captain Wright was a prisoner of war in the hospitals at Chattanooga, the State's Prison at Nashville, and Camp Chase, near Columbus, Ohio, until he effected his escape from the cars near Harrisburg, Pennsylvania, March 27, 1864, while *en route* with several hundred fellow-prisoners to Fort Delaware, near Philadelphia. Making his way to friends in the latter city, he hastened by train, through New York and Vermont, to Canada; thence down the St. Lawrence River and by sea to the Bermuda Islands; and thence on the blockade-runner *Lilian*, under Capt. John Newlen Maffit, to Wilmington, North Carolina, returning to Dixie June 4, 1864. Reporting for duty at Richmond, he was ordered to rejoin his regiment at Atlanta, which he did, after forty-five days' leave with his family in Alabama.

For the last nine months of service, he acted as field-officer, often having command of his regiment, and near the close of the war was made Major, in the regular order of promotion.

The war ended, he declined an excellent offer to begin the practice of law, and in preference, returned to his old post, where he continued to assist Professor Tutwiler in his Greene Springs School until the spring of 1868. Wishing then to seek a more active life and a home for his family and friends in the "far West," he came to California, by way of New York and the Panama route, on the steamers *Guiding Star* and *Nevada*, landing in San Francisco June 13, 1868. Coming at once to Stockton and joining Southern friends who had preceded him, their party, with whom were Judge S. A. Holmes and Mr. L. A. Sledge, now of Fresno County, came at once by private conveyances over the then wild plains to Fresno County, and located the lands which afterwards formed the Alabama Settlement. Purchasing lands for Professor Tutwiler and himself here, and also in Stanislaus County, near where Turlock now is, he began farming that fall in Stanislaus, and continued farming there for six years, as those lands were then most convenient to market. Sowing to wheat and barley the first winter 780 acres, he increased his acreage each year, mostly on rented land and borrowed capital, until, for the crops of 1873 and 1874, he had in 4,000 acres of grain in Stanislaus and Merced Counties.

When the Grange-tide began to sweep over California in 1873, Captain Wright was made Master of Turlock Grange at its organization in June, and on the 15th of July following he was elected Master of the State Grange of California, when it was organized at Napa City. He served in this position and as State Lecturer until October, 1876, when he resigned his official duties, as the private interests of his business and his family required his undivided attention. As a State Grange official, he attended four successive sessions of the National Grange; in 1874, at St. Louis, where he became the author of their "Declaration of Purposes;" in 1875, at Charleston, South Carolina, and at Louisville, Kentucky; and in 1876 in Chicago, being sent between the last two sessions on important business to Germany, England, and Scotland, as Commissioner of the National Grange to Europe.

On account of a succession of unfavorable seasons, coupled with low prices for wheat, high rates of interest, and high prices for everything which farmers had to buy, Captain Wright became financially embarrassed, by his farming operations on the dry sand-plains of Stanislaus, as did hundreds of other grain farmers of San Joaquin Valley at that date. With a prospect for irrigation on his Fresno land, which a sad experience of six years had convinced him was absolutely necessary for permanent success in farming in any part of the great valley where he had cast his lot, he removed all his farming interests to Fresno County, near Borden, in December, 1874. Here he put in three more crops on 960 acres of his own land, renting his ranch in the winter of 1876–77, but to no purpose, for neither crop paid expenses. His hope for the indispensable irrigation was disappointed, except for 100 acres the first season. The reason for this was that the canal from the Fresno River, on which his land depended for water, was owned by a corporation that was unfriendly to Captain Wright, on account of his Grange record and other anti-monopoly work, and which at best was inclined to allow few lands except their own to be irrigated. The result of his nine years' struggle for success in farming on the arid plains of San Joaquin Valley was, that all his property was swept from him in 1877, under mortgages, leaving burdensome debts besides; and he was compelled to "begin life anew," from "bed-rock," as our California parlance has it.

To take this fresh start, he came to the irrigated lands of Mussel Slough District, and located in Hanford, in June, 1878, feeling that he realized here, for the first time in California, his ideal of a mixed husbandry on land, systematically irrigated by independent and enterprising ranchers on small farms. Since his location among the farmers of Mussel Slough, he has engaged in a general agency for fire and life insurance, newspapers and books, and as correspondent by telegraph and otherwise for the San Francisco daily papers.

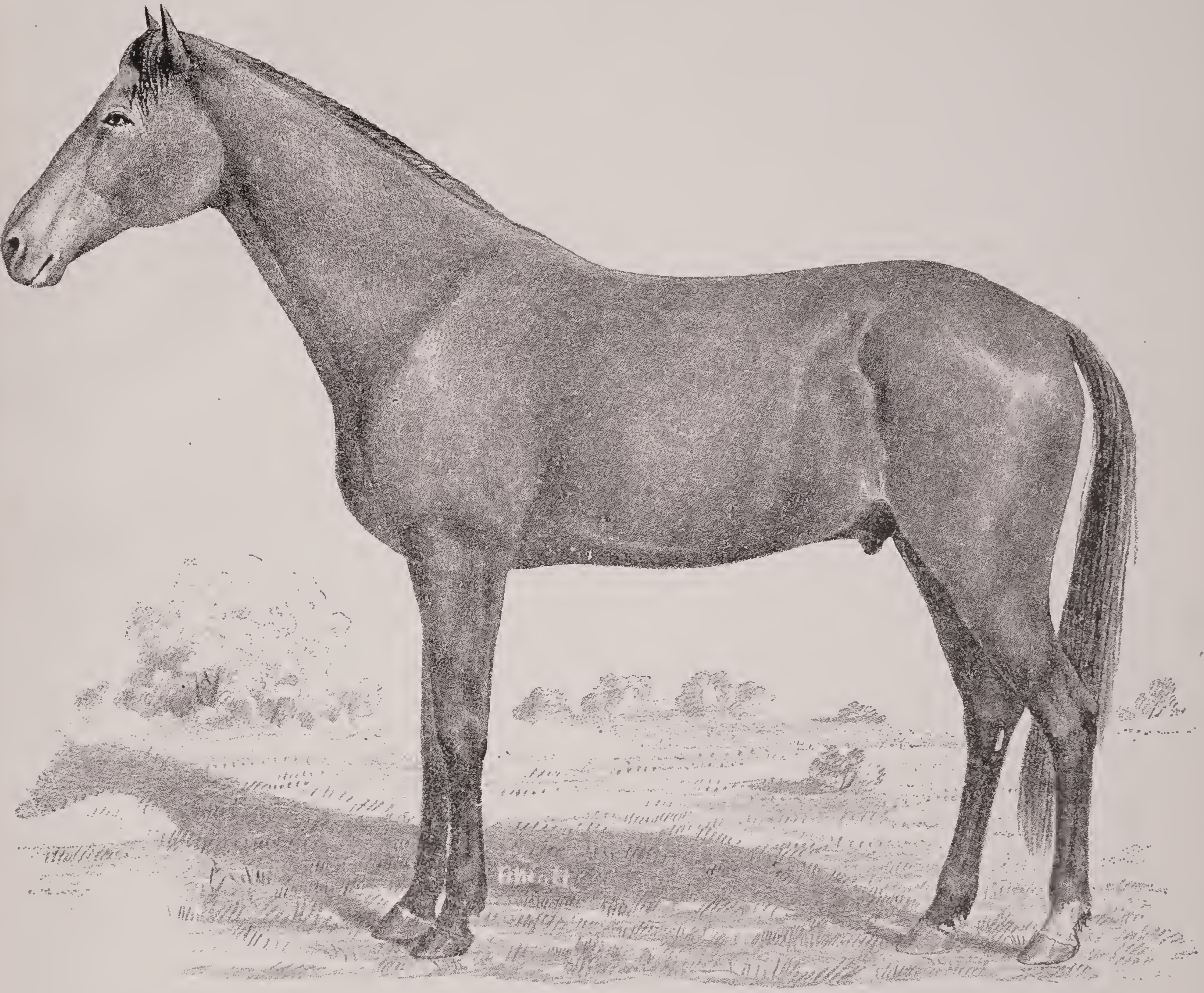
Learning, soon after his removal to Tulare County, the nature of the contest of many settlers here and in Fresno County for their homes, as against railroad claims, and being fully satisfied of the justice of their cause, he has sought by his correspondence, and in every other way—though he has not a personal interest in an acre of land anywhere—to assist the struggling settlers in their long and heroic contest for an equitable adjustment of their claims.

For twenty years past the subject of this sketch has been known as a correspondent of various newspapers and periodicals of California and elsewhere, on the live and stirring issues of the day, most usually over his own signature, but often editorially, and under more than one *nom de plume*, the chief of which is "Ralph Rambler."

During his fifteen years' residence in California, he has constantly exerted himself to aid in developing its resources, and to advance the general interests of its people.

R. L. PORTER MICKLE is a native of the State of Tennessee, and was born in Nashville, Davidson County, November 23, 1849, being the eldest son of Dr. J. G. and Sallie A. E. Mickle. He resided in or near Nashville until about 1857, when, with his parents, he moved to western Kentucky, there remaining two years; he thence moved to Little Rock, Arkansas, and would doubtless have lived there to date had it not been for the failure of his father's health, which forced him to seek health and happiness in other climes—that of his native State, near Murfreesborough, Tennessee, and eventually returning and settling in western Kentucky. From there he started, on May 12th, to seek his fortune in the Golden West, bringing his wife, who has always been a helpmate and comforting companion. He came by way of the Central Pacific Railroad to Sacramento, thence to Lemoore, and thence, after a short time there in the butcher business, he went to Hanford in July, 1880, and engaged in the same business. He married Miss Ines Angela Lovelace in 1876, who was a native of Kentucky.

JOHN W. YOUNG, the Tulare centinarian who now lives with one of his sons at Hanford, was 100 years old on the 10th of July, 1882. He was born in New Jersey, about twenty miles north of Trenton. He remembers distinctly the death of General Washington in December, 1799. His father was captain of the "Jersey Blue Horse" in the Revolutionary War, and was one of the invincible command that crossed the Delaware and captured the Hessians at Trenton. Mr. Young retains his faculties wonderfully well, and relates with surprising accuracy many incidents of his childhood and early life. His biography would make an interesting volume. He has now eighty grandchildren. He has chewed tobacco for seventy years, but has never smoked much. Though a moderate drinker till over seventy, he has been a total abstainer for over twenty years. He is a firm believer in the Bible, and reads it daily. He votes the Republican ticket.



THE NOTED HORSE "ALTIMONT," THE PROPERTY OF W. W. FOSTER.

ALTIMONT

Is a beautiful dark bay, slightly dappled, 17 hands high weighing 1,400 pounds in moderate condition. He is a horse of magnificent proportions, of unusually fine style and action, kind disposition, and while so powerfully built, he has a handsomely shaped head, bright, full, lustrous eyes, nicely arched neck, high on the withers, well-sloped shoulders, full through the heart, round in the barrel, closely ribbed, and well coupled back, deep stifle, with good sweep of hip to large strong hock and knees, being extraordinary heavy in joints and bone, while smooth and well defined throughout, which, when taken in connection with his rare combination of the choicest blood our most scientific breeders can boast of, will certainly insure him a high per cent. of trotters in his get, while he cannot well fail to get the high formed coach horse, or the most valuable horse of all-work.

Altimont, very dark bay, bred by Wm. T. Withers, Lexington, Kentucky, foaled April 24, 1878, 16½ hands high, sired by Almont, sire of Piedmont, record 2:17¼ in fourth heat, and 15 in 2:30 list. Dam, Belle Miller, by Blackwood, record 2:31 at three years old, sire Protine, record 2:18, 2d dam by Membrino Chief, sire of Lady Thorne, 2:18¼; 3d dam by Hickory, thoroughbred; 4th dam by Camdenson of imp. Sarpedon, sire of Lexington's dam; 5th dam by Cherokee, son of Sir Archy.

George Thomas Thornton was born in Madison County, Tennessee, on his father's farm, near Jackson, February 15, 1836. In 1840 he went with his father's family to Henry County, Missouri, and there remained on his father's farm until twenty years of age. Most of his time was occupied in farm work and duties. But he attended the district schools, and received the usual English education of that period.

In April, 1856, he started from Boonville, Missouri, across the plains with the train of Alstot and Showalter. They had 500 head of cattle, and two wagons and ox-teams, the party consisting of ten men, without any women or children. They had a successful journey, of five months, without any trouble with Indians, and arrived at Cache Creek, in Yolo County, about the end of September. Mr. Thornton left at once for the mines in Nevada County, and after remaining and mining for three months at Woolsey's Flat on the Middle Yuba, he went to the neighborhood of Auburn, Placer County, and remained there four years, engaged constantly in Placer mining, with moderate success.

In October, 1860, Mr. Thornton removed to Tulare County, and worked on the stock ranch of Wm. T. Cole, on the north side of King's River, near the present head of Cole Slough. In June, 1863, he went to the south side of King's River, and worked on the ranch of David Burris, near Burris' Point, till the following April. In September, 1864, he formed a partnership with Mr. Burris, in the stock business, and the next spring he purchased from A. P. Cromley his present home, ten miles northeast of Hanford, to which he has since added adjacent lands. Mr. Thornton, after fourteen years spent in stock-raising, has, for five years past, been one of the most extensive grain-raisers in the Mussel Slough District, and with his renters sows every year about 1,500 acres of wheat and barley.

Mr. Thornton has never married, but is now turning his thoughts in that direction.

Daniel Spangler is one of the earliest settlers of Tulare, a California pioneer, and withal, a man of high intelligence and sterling integrity. He was born in Pennsylvania, in 1828, and six or seven years later taken by his parents to Macon County Illinois, where the family permanently settled. The youth received such education as was imparted in the schools of that period. He pursued the even tenor of his way until 1846, when war was declared between Mexico and the United States, and young Spangler's soul burned with patriotic ardor to participate in the conflict. Though not yet nineteen years of age, he enlisted as a private in the Fourth Regiment of Illinois Volunteers, Col. E. D. Baker, and with his companions in arms went forth to do battle for his country. Baker arrived with his regiment safely at Brazos Santiago, on the Gulf of Mexico, and then proceeded up the Rio Grande and then to Camargo, when he was ordered to return and join General Scott at Vera Cruz. Baker promptly obeyed the order, returned to Matamoras on the Rio Grande and thence marched overland to Victoria, where General Taylor was stopped in his advance by an order to return to Monterey. Colonel Baker with his command continued on to Tampico, and then by transports arrived before Vera Cruz participated in the bombardment and possession of the city. Proceeding on the road leading to the Halls of the Montezumas, young Spangler assisted in the conflict at the Puente Nacional and then in the great battle of Cerro Gordo. The Illinois Regiment, to which Spangler was attached, was disbanded, their term of enlistment having expired and " the young hero covered with glory " returned to his home in Illinois. Soon after his return home he married Miss Martha Rea, a young lady of much amiability and intellectual endowments.

In the fall of 1848 the startling intelligence of the discovery of gold in California was announced to the people of the United States, with the additional news of the gold being found in great profusion and extracted with facility from a vast auriferous region. The wildest excitement prevailed, and persons of every class were busily engaged in preparing to start for the new El Dorado. In the latter part of 1849, leaving his wife and child comfortably situated in Illinois, Spangler started for California by water, but did not reach his destination until some time in the following year, 1850. In 1852 he returned for his family and with them came by way of the Isthmus of Panama back to this country. After awhile he settled his family with the father of Mrs. Spangler, near San Jose. He repaired to Tuolumne County and engaged in mining for a few years. Years ago he settled at his present place on King's River, where he has resided ever since and been engaged in the vocation of a farmer. At the time he settled here there were but three or four persons on King's River.

His home, as will be seen in the illustration, is surrounded by every convenience, such as out-buildings, wind-mill. The surroundings of the house exhibit the taste as well as prosperity of the owner. The yard is filled with shrubs and trees, and in front is a hedge of evergreens. At either side are orchards of a variety of fruit, as well as a thrifty vineyard of grapes. He keeps considerable stock and carries on a variety of farming. His place justly receives the name of the " pioneer farm."

Five Supervisor Districts.

In July, 1882, the Board of Supervisors, in accordance with the requirements of the Political Code, re-districted the county, making five Supervisor districts, five road districts, and five Judicial townships. By this arrangement, each road district and Judicial township are the same size, and include the same territory as the Supervisor districts.

Supervisor District No. 1 is bounded so as to include Tipton, Woodville, Porterville, Saucelito, Frazier Valley, Mountain View, and White River Election Precincts.

Supervisor District No. 2 is bounded so as to include Tulare, Farmersville, and Yokohl Election Precincts.

Supervisor District No. 3 is bounded to include Visalia, Hamilton, Kaweah, and Mineral King Election Precincts.

Supervisor District No 4 includes Grand View, Wilson, Sand Creek, Elbow, Venice, Ash Spring, and Forest Election Precincts.

Supervisor District No. 5 includes Lemoore, Grangeville, Hanford, Excelsior, and Lake Side Election Precincts.

VOTES CAST AT PRESIDENTIAL ELECTION IN 1880.

The following is the complete returns by precincts of the last Presidential Election in Tulare County, held in November, 1880.

NAMES OF PRECINCTS.	PRESIDENT.		CONGRESSMEN.		
	James A. Garfield, R.	W. S. Hancock, D.....	Romualdo Pacheco, R.	Wallace Leach, D.....	J. F. Godfrey, G......
Mineral King..........	14	8	13	7	2
Kaweah..............	15	10	4	10	15
Woodville	38	85	32	76	15
Saucelito	18	3	13	......	8
Sand Creek...........	15	39	10	39	7
Wilson	1	12	1	12	1
Porterville............	99	126	97	121	15
Mountain View........	10	22	......	8	36
White River..........	6	27	6	27	......
Forest................	1	11	1	11	......
Ash Spring...........	6	27	5	25	3
Excelsior.............	22	35	10	16	45
Grangeville...........	56	57	41	36	57
Tulare	92	71	84	63	18
Hanford	109	160	62	102	135
Venice	10	39	9	37	5
Farmersville	64	69	57	63	19
Yokohl	7	14	7	14	......
Visalia	208	280	201	261	32
Hamilton.............	9	35	5	27	21
Tipton	27	23	20	20	10
Grandview	4	5	4	4	1
Lemoore	78	108	51	102	52
Elbow................	10	43	8	40	6
Total Vote..........	919	1309	741	1121	503
Majorities...........	......	290	......	380	......

VOTES CAST AT ELECTION NOVEMBER, 1882.

GOVERNOR.

	VOTES CAST.	MAJORITY.
Morris M. Estee......................	803	
George Stoneman.....................	1,566	763
T. J. McQuiddy	88	
Richard H. McDonald.................	160	

COMPTROLLER.

	VOTES CAST.	MAJORITY.
Wm. A. Davies.......................	880	
John P. Dunn........................	1,551	651
M. E. Morse	72	
H. W. Rice	116	

RAILROAD COMMISSIONER.

	VOTES CAST.	MAJORITY.
E. M. Gibson........................	654	
W. W. Foote.........................	1,814	1,160
A. D. Boren.........................	149	

BOARD OF EQUALIZATION.

	VOTES CAST.	MAJORITY.
Chas. W. Dana......................	982	
John Markley........................	1,489	507
J. S. Loveland	70	

SENATOR.

	VOTES CAST.	MAJORITY.
Geo. F. Rice	1,272	
P. Reddy	1,329	57

ASSEMBLYMAN.

	VOTES CAST.	MAJORITY.
F. H. Wales	1,189	
*W. L. Morton	1,380	191

DISTRICT ATTORNEY.

	VOTES CAST.	MAJORITY.
Oregon Sanders......................	1,435	291
A. B. DuBrutz	1,144	

CLERK.

	VOTES CAST.	MAJORITY.
L. H. Douglass.......................	803	
L. Gilroy	1,515	712
Wm. McQuiddy......................	276	

RECORDER.

	VOTES CAST.	MAJORITY.
J. E. Denny..........................	1,303	15
Paschal Bequette.....................	1,288	
John Goble............................	.....	

ASSESSOR.

	VOTES CAST.	MAJORITY.
F. G. Jefferds	934	
Seth Smith..........................	1,640	706

TREASURER.

	VOTES CAST.	MAJORITY.
L. J. Morrow........................	987	
W. W. Coughran	1,623	636

SUPERINTENDENT OF SCHOOLS.

	VOTES CAST.	MAJORITY.
H. F. Turner........................	1,208	
C. H. Murphy.......................	1,387	179

SURVEYOR.

	VOTES CAST.	MAJORITY.
Volney Baker	925	
Thos. Creighton......................	1,635	710

AUDITOR.

	VOTES CAST.	MAJORITY.
L. A. Rockwell	1,088	
John F. Jordan......................	1,519	431

CORONER.

	VOTES CAST.	MAJORITY.
A. E. Hall	965	
L. M. Lovelace......................	1,515	550

TAX COLLECTOR.

	VOTES CAST.	MAJORITY.
A. P. Merritt........................	1,059	
H. A. Keener........................	1,565	506

SHERIFF.

	VOTES CAST.	MAJORITY.
J. W. Loyd	1,124	
Wm. F. Martin	1,491	367

SUPERVISOR.

	VOTES CAST.	MAJORITY.
Wm. R. Harris	229	
S. M. Gilliam........................	278	49
Wm. H. Hammond	245	41
A. M. Wright........................	204	
James Barton........................	172	
J. W. C. Pogue	355	183
Courtney Talbot	120	11
John Cutler..........................	109	
S. E. Biddle.........................	380	

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*Hon. W. L. Morton died while the Legislature was in session, and, at a special election held, the Hon. A. J. Atwell was elected to fill the vacancy.

Means of Travel Before Railroads.

The following advertisements show the routes of travel, as well as rates of fare, from Visalia, before the railroad was constructed:—

U. S. MAIL.

TELEGRAPH LINE STAGES.

FARE REDUCED AND SPEED INCREASED!

On and after Wednesday, May 1, 1867, Stages leave San Jose as follows:—

MONDAYS, WEDNESDAYS, AND FRIDAYS,

On the arrival of the morning train of cars from San Francisco, for
Gilroy, San Luis Ranch,
Firebaughs, Kingston,
Visalia, Tule River,
White River,
Linn's Valley,
Green Horn,
Kernville, and
Havilah.

FARE THROUGH

From San Francisco to Visalia - - - - - - - - -	Twenty-five dollars.
From San Francisco to Havilah - - - - - - - -	Thirty-five dollars.

Returning, leave Havilah alternate days.

RUNNING TIME—48 HOURS.

A. O. THOMS, Proprietor.
San Francisco office, opposite Occidental Hotel, Bush Street.
W. G. ROBERTS, Agent.

UNITED STATES MAIL.

CHANGE OF TIME.

HORNITOS AND VISALIA LINE OF STAGES

On and after May 1, 1868, Stages will leave Visalia on Tuesdays, Thursdays, and Saturdays, for Smith's Ferry, Centreville, Millerton, Fresno River, Buchanan Hollow, Mariposa Creek, Indian Gulch, and Hornitos, connecting with Fisher & Co.'s Stages from Stockton, at Hornitos, and with A. O. Thoms' Stages for Kernville and the Clear Creek Mines, at Visalia.

Returning, leaves Hornitos on alternate days until further notice.

P. BENNETT, Proprietor.

Toll Road Notice.

On and after this date the following rates of toll will be charged on all freight teams running on Thomas' Road to the Pinery, and not freighting from their mill:—

One	Span of horses and wagon	$1 50	6 and 7 Span of horses and wagon	$6 00
Two	“ “ “ “	2 50	Horse and buggy - - - -	50
Three	“ “ “ “	3 50	Saddle horse - - - -	25
Four	“ “ “ “	4 50	Loose stock - - - -	05
Five	“ “ “ “	5 50	Pack-animals - - - -	25

Freight teams are only charged one way, and no credit.

J. H. THOMAS & BROTHER.

CRY FOR RAILROADS.

There was a cry for a railroad along the entire San Joaquin Valley. The *Visalia Times* of 1868, in urging the construction of a railroad to San Francisco, said: "Such a road would be of the utmost value to this section of the State. Our citizens should aid in its construction, and it will add to their wealth. The road can be made, and may God speed the day." Again it says: "Farmers and stockmen are paying sixty dollars per ton for merchandise from Stockton to Visalia. The people might save $100,000 annually if we had a railroad. Land that is worth five and ten dollars per acre will be worth, after the completion of a railroad, from forty to sixty dollars per acre."

SOUTHERN PACIFIC RAILROAD.

In 1870 the railroad company branched off from Lathrop with a road running through the center of the county. This new road was called the Stockton and Visalia Division of the Central Pacific Railroad, and made its way through the heart of the southern part of the State. Along its route sprang up new towns and villages, thus changing the general character of the country and forming new business centers.

This county has since the advent of the railroad developed into a rich agricultural region. The large herds of cattle that once roamed over these plains have disappeared from view; the long horn of the Spanish steer is no longer visible. The farmer has taken the place of the *vaquero;* the plow the place of the lariat. The branding-iron and the raw-hide, the lasso and the *rodeo,* have become relics of the past. The first bright gleams of a glorious future are dawning over the people. This great valley has become a unit in interest and alike in feeling; the two conflicting interests—agriculture and grazing—no longer cross their swords in eternal warfare, but now they are united and led by a common interest.

The railroad in the upper valley runs through what looks to be an interminable wheat-field. Wheat, wheat; nothing but wheat as far as the eye can reach over the plain in every direction. Fields of two, three, and five thousand acres make but small farms. Here one man has 10,000; here another 20,000, all in wheat. In June the whole plain is one ocean of waving heads. As you look out and see mile after mile without a division fence, twenty or forty miles apparently in one field, you are lost in wonder. All this great yield must be moved out of the county by the railroad.

The railroad reached Goshen in June, 1872. Mr. Hoffman, locating agent, accepted, as a gift, lands from W. R. Owens. In July a depot building was erected, and the first passenger train reached there on July 25, 1872. C. M. Valle was first station agent there. The road was pushed on to where Tulare City now is, and a town laid out as described elsewhere.

VISALIA BRANCH RAILROAD.

The project of a branch railroad from Visalia was immediately broached, and after several meetings and considerable effort the road was constructed, connecting Visalia with the main line at Goshen.

The *Times* of August, 1874, said in reference to this railroad: "It may be well said that yesterday was one of Visalia's proudest days. Our citizens have long talked of building railroads, and have laid various plans and made many calculations, but till recently their efforts have been fruitless. The track-laying on the new road was completed into town yesterday, and the first train came in at 6 o'clock in the evening. We feel proud that we to-day for the first time have the privilege of announcing that Visalia has connection with the commercial world by means of a railroad. The switch and necessary appendages will soon be finished, and the road ready for the transportation of passengers and freight in a few days. The mail and express will also be carried on the cars. Let this be but a grand start in the advancement of Visalia."

ADVANTAGES OF THE RAILROAD.

Without the railroad for moving the products of Tulare County, it would be impossible to find a paying market for the immense yield of its fertile fields. Take for instance the wheat crop: Twenty thousand pounds is the average weight of a car-load, at which figure 2,400 cars would generally be required to transport the surplus grain to the sea-shore. If all were shipped by one train, the train would be over fourteen miles in length, and require something like eighty locomotives to draw it. This is only one item of production. Add to this other cereals, stock, fruits, etc., and the traffic is simply immense.

GOSHEN DIVISION S. P. R. R.

This piece of railroad extends from Goshen to Huron in a westerly direction for miles. This road passes through the noted Mussel Slough country, and affords an outlet for shipping the large amount of grain, fruit, and stock of this fruitful section. The road is designed as a continuation of the line which now terminates at Hollister, in San Benito County. Huron is the present terminus of this Goshen Division, which consists of simply a station, and very little business is here transacted. The towns of Hanford and Lemoore on this road are flourishing, and each have a large trade and are supported by agriculture.

HANFORD SINGLE TRACK RAILWAY.

The so-called James Single Track Railway was put in operation at Hanford a few years ago, and a few miles of road constructed. The first operations of the road were considered successful. Dr. Bradley was President of the company and Joseph Clark Superintendent. Mr. Hobser was the first engineer. No permanent progress was, however, made with this road.

Several other railway enterprises, both before this one and since, have been projected, but all failed. The object was to organize a new line to tide water in competition with the Southern Pacific.

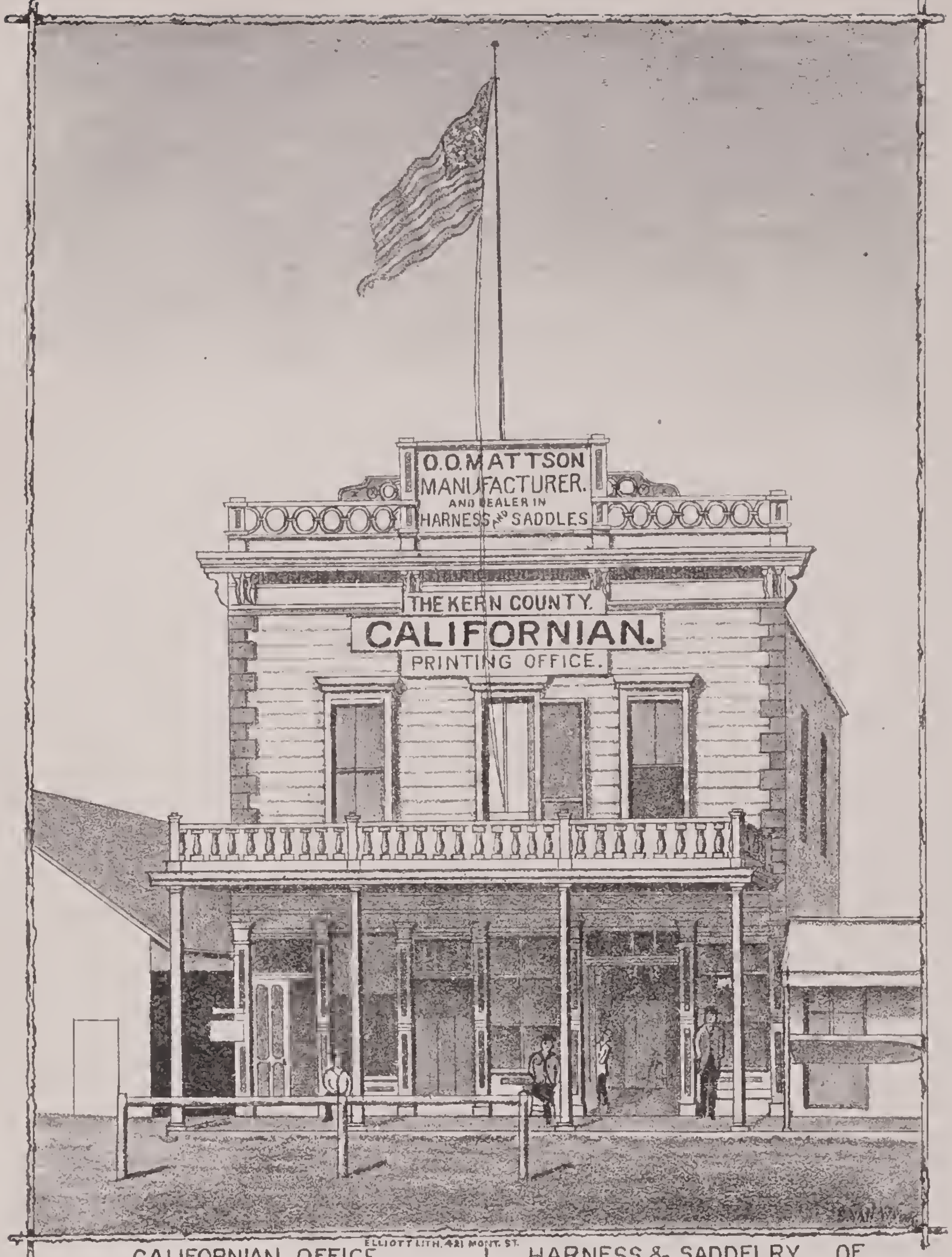
HEIGHT OF PLACES.

The railroad company give the following as the correct heights of some important places above low water-mark of Suisun Bay: Visalia, 339 feet; Hanford, 249 feet; Tulare City, 289 feet; Lemoore, 227 feet; King's River bridge near Lemoore, 222 feet; Goshen, 286 feet; Huron, 376 feet; Summit Lake, 220 feet.

Capt. J. W. A. Wright gives the height of Tulare Lake at 200 feet.

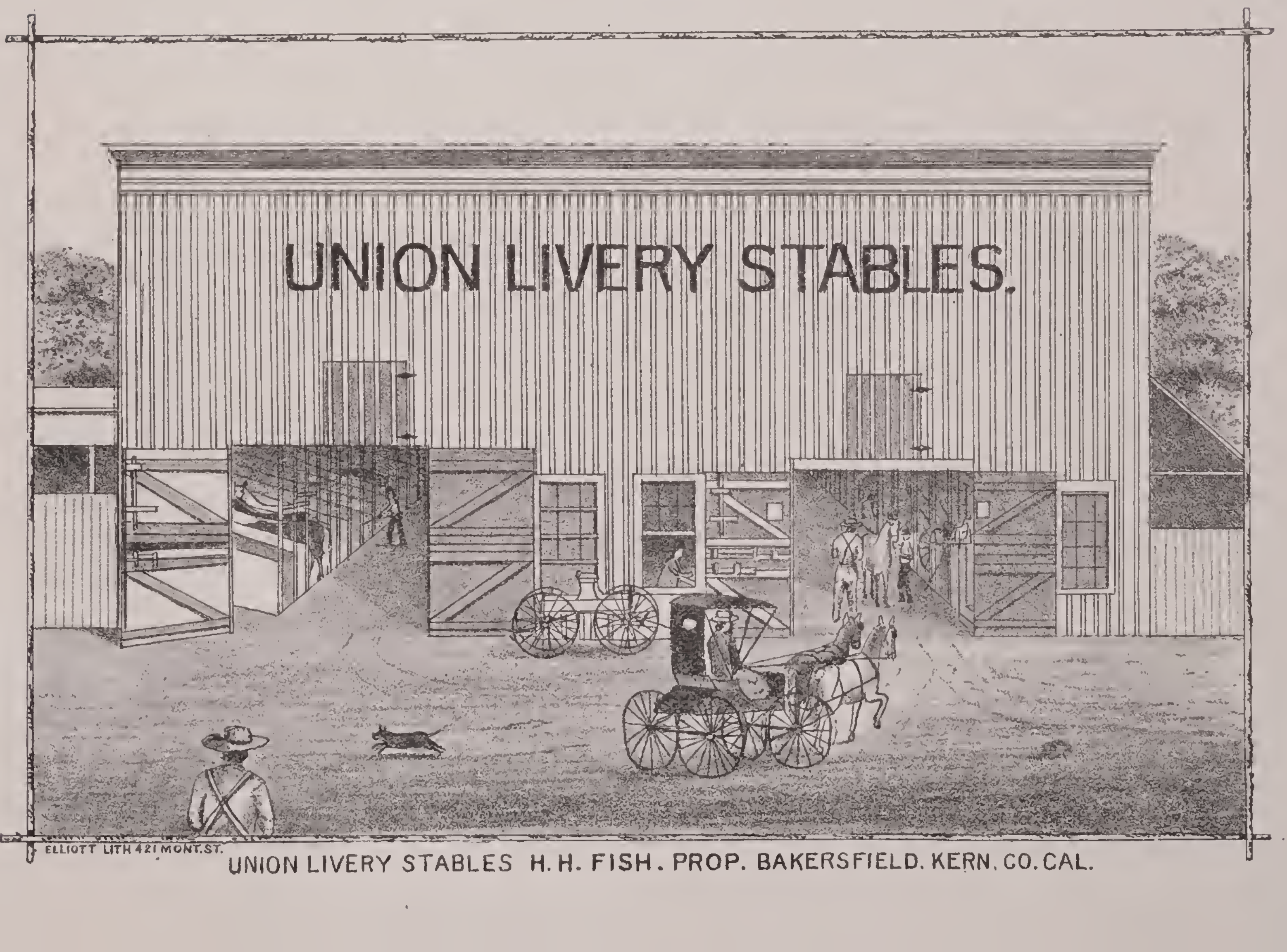
Depth of Tulare Lake.

A VARIETY of statements were furnished us as to the area and depth of Tulare Lake, and Capt. J. W. A. Wright says: "Erroneous statements have long been going the rounds in various journals, as regards the extent of surface and the depth of Tulare Lake, to the effect that its water covers 230,000 acres of land, and that its greatest depth is sixty feet. The facts in the case should be recorded in a permanent work like the present, and are as follows, as was proven beyond question by Captain Wright's six days' voyage in the schooner *Water Witch* around and across the lake in May, 1882: Diminished in size as the lake was by the receding of its waters for several miles on its northern, eastern, and southern shores, it covered at that time not far from eleven and a half townships, or more nearly 417 sections or square miles of land. This makes more than 266,000 acres, and its area, at the present writing, July, 1883, is but little less than that, although its depth now is between one and two feet less than it was a year ago. Its greatest depth at that time as shown by hundreds of careful soundings, with a good lead and line, was only between twenty-one and twenty-two feet. So that its greatest depth now does not exceed twenty feet. These deepest soundings are found in a comparatively narrow depression about midway between the mouth of King's River on the north and Terrapin Bay on the south, and this depression appears to be the old channel of the line of drainage, before the immense deposits of sediment from King's River formed the dam across the valley—a dam about forty feet high—which undoubtedly was the cause of Tulare Lake. Much the larger portion of the lake, which is really the largest fresh-water lake on the Pacific Coast, varies in depth from four to nine feet. On the last day of her successful and pleasant voyage, the *Water Witch* sailed fifty miles, going out to and beyond the center of the lake, at least ten miles from shore in any direction, and sailing northward after midnight, cast anchor at 6 A. M. next morning near the mouth of King's River, whence she had sailed six mornings before. Continuous soundings were made throughout the day and night with the results above given, corresponding with the results of the numerous soundings of the first days of the voyage. Before Captain Wright's party went ashore they visited, in the small boat, Pelican Island, which stretched for a mile or more south of the west bank of King's River, a narrow strip of sandy land scarcely a hundred feet across its widest part, rising only about eighteen inches above the lake surface, and without the slightest vegetation. Here thousands of white or rough-billed pelicans (*Pelicanus erythrorhynchus, Gm.*), and Brandt's cormorants (*Graculus penicillatus, Bonap.*) build their nests side by side and rear their young on the bare sand. For their nests the


O.O. MATTSON
MANUFACTURER.
AND DEALER IN
HARNESS AND SADDLES
THE KERN COUNTY
CALIFORNIAN.
PRINTING OFFICE.

ELLIOTT LITH. 421 MONT. ST.

CALIFORNIAN OFFICE. HARNESS & SADDELRY OF
A.C. MAUDE PROPRIETOR. O.O. MATTSON
BAKERSFIELD. CAL.


UNION LIVERY STABLES.

ELLIOTT LITH 421 MONT. ST.

UNION LIVERY STABLES H. H. FISH. PROP. BAKERSFIELD. KERN. CO. CAL.

pelicans merely rake up the sand slightly in a circle with their wings, and lay in them two white eggs about three and one-half inches long by seven inches around their smaller circumference. The cormorants add a few pieces of tule stalks and flags around their nests, and lay two or three eggs, smaller than those of the pelican, and of a bluish-green color. The spread of wings of one of several pelicans the party killed lacked only an inch of being nine feet.

"The winter after this trip, the only voyage of exploration ever made on Tulare Lake, the *Water Witch* was stranded and completely wrecked by one of the severe storms for which this lake is noted, and for more than a year not a sail has whitened the bosom of this large, curious and interesting body of semi-brackish water.

"*Verbena nodiflora* is one of the most useful native plants of Tulare County. It grows in large quantities on lands north and east of Tulare Lake for fifteen or twenty miles, especially along lower King's River. Its common name is "bee-plant," and it well merits the name. Bees are very fond of its small white flowers, which bloom through spring and summer in successive rows, on a cone or scape about an inch long, and from these, bee-men say, the whitest and purest honey of Tulare County is made. This plant does not grow high, but spreads with its trailing stems close to the ground, and with its small, dark green, slightly dentate leaves, presents a very pretty appearance. It is also a pasture plant which stock eat readily, where alfalfa is not abundant."

The Mussel Slough Difficulties.

THE so-called "Mussel Slough difficulties" have extended through about a dozen years, and from time to time have occupied the attention of the people everywhere. The highest courts have been engaged in settling these troubles which arose from settlers occupying lands claimed by the railroad company before any valuation was positively fixed as the railroad company claim. The settlers brought water upon the barren lands and made the "desert to blossom as the rose." When the lands were graded the railroad fixed a price which the settlers said was five or ten times greater than they expected to pay for the lands they were living on. It must not be forgotten that the settlers had the use and profits from these lands for a series of years, on lease or otherwise.

We give a brief review of some of the principal proceedings as they occurred upon both sides being extracts from newspapers of those dates.

"On the 12th of April, 1878, a mass meeting was called of the settlers. About six hundred men assembled at Hanford, and there was organized the Settlers' Grand League, under and in accordance with the following resolutions and pledge:—

SETTLERS' GRAND LEAGUE.

"*Resolved*—First. That while we are willing to pay the full value or the Government price of these lands, or what the value was when the Southern Pacific Railroad filed their map, January 3, 1867; or we are willing to pay the full value, the Government price, of these lands when the Southern Pacific Railroad claimed its right attached, June 28, 1870, or the full value now, which, without our presence, our ditches, our cultivation, and other improvements, would not exceed $2.50 per acre; but we are not willing, and look upon it as a case of injustice without a parallel in the United States, that we should have to pay the enhanced value, made by our own industry and toil.

"*Resolved*—Second. That we recognize no rights of the Southern Pacific Railroad Company to our homes, and that the Southern Pacific Railroad Company, or its assigns, cannot peaceably enjoy the benefits of our several years' toil and expense to our exclusion; and that, in placing our signatures to these resolutions, we do it with a firm resolve to stand by each other in the protection of our homes and our families against this fraudulent claim of the Southern Pacific Railroad Company, or its assigns, and we will stand in the attitude of one man until our case is finally adjudicated in the United States Supreme Court."

These resolutions were signed by several hundred settlers. Many attempts were made by conference and otherwise to compromise the difficulties but they all failed.

"On August 14, 1878, T. J. McQuiddy, T. Shivers, and J. J. Doyle, wrote from Grangeville to the railroad company, saying the people of that section of country had met in Hanford, August 10, 1878, and adopted resolutions in regard to Wm. H. Clark, the land grader, the final sentence of which was as follows: "We would respectfully ask that you remove *at once* said Clark and avoid what we fear will be serious trouble in the near future."

"On November 8, 1878, suits in ejectment were brought by the S. P. R. R. Co., against persons in Mussel Slough holding adversely its patented lands. Judgment for the company was rendered on December 15, 1879, in the U. S. Circuit Court, San Francisco."

"On Friday night, November 21, 1878, a band of masked men, numbering from eighty to one hundred and fifty, went on horseback to the house of Ira Hodge, about five miles east of Hanford, and about midnight set Hodge and his wife and children, with their household goods, out-of-doors, and burned down the house." See Hanford *Public Good* of November 26, 1878 (not now published).

"On December 15, 1878, men with 100 teams drove Perry C. Phillips from land that he had bought from the railroad company, plowed it up and put James B. Fretwell in possession."

On March 4, 1879, in consequence of the railroad land troubles a military company was organized at Hanford. See San Francisco *Chronicle*, March 5, 1879.

The following is from the San Francisco *Morning Call* of July 21, 1879: "Midnight Visitors—Hanford, July 20th.—About forty mounted men, fully disguised, called Dr. DeWolf from his bed at 1 o'clock last night. They inquired the whereabouts of Clark, the land grader, Walter Crow, and Hartt. They, without doubt, belonged to the settlers' league. One person acted as spokesman and the rest remained silent. At a signal they all rode off. Whether they tore up the railroad track or did anything else, has not transpired. Ed. Smith, in another part of town, was also called up. What their object was in calling uninterested persons from their beds in the night, is not clear. One thing is certain, no person can buy this land from the railroad company and occupy it, till the title is settled in the courts."

"On May 10, 1880, U. S. Marshal Poole went to Hanford for the purpose of putting purchasers of railroad lands in possession under said judgment. He was resisted by an armed force. The fight that ensued resulted in the death of eight persons."

"To prevent the news of the resistance offered to the U. S. Marshal from spreading, the telegraph operator at Hanford was driven from his office. In order that the dying statement of M. D. Hartt (one of the purchasers of railroad land), who was badly wounded in the fight, might not be taken, no one was allowed to go to his house to render assistance. See San Francisco *Bulletin*, *Chronicle*, *Call* and *Alta*, of May 12th, 13th, and 14th, 1880.

"On June 1, 1880, the railroad company offered to reduce the price of the land 12½ per cent. Almost all the settlers made application to rent, the railroad company having also agreed to allow them to apply the rent for 1880 on the purchase of the land at the reduced figures. After leases were made out on these applications and sent to Hanford, the applicants refused to sign them."

"On July 21, 1880, D. W. Parkhurst, one of the traveling employes of the railroad company, was at Hanford with his wife. About 11 or 12 o'clock at night a band of masked men called him from his bed to the door of the hotel where he was stopping, and with pistols and guns pointed at him, warned him to leave town, which he did. See San Francisco *Chronicle*, April 23, 1880."

"On December 22, 1880, in the U. S. Circuit Court, San Francisco, the following persons were convicted of resisting the U. S. Marshal, and were, January 24, 1881, sent to prison at San Jose: J. J. Doyle, James N. Patterson, J. D. Purcell, W. L. Pryor, and Wm. Braden." See San Francisco *Bulletin*, December 23, 1880.

RESULT OF THE CONTEST.

The Visalia *Times* of May 15, 1880, said: "As has long been anticipated, the conflict between settlers in the Mussel Slough country and purchasers of railroad lands has been inaugurated—when to be ended, time alone can tell. Language is inadequate to depict the horrible affair.

"The difficulty occurred on Brewer's homestead, about three hundred yards from Tulare County line in Fresno County, and was brought about by the U. S. Marshal attempting to dispossess settlers on what is called railroad lands. The battle was a quick and decisive one."

"The following-named persons were killed: Settlers—James Harris, Iver Knutson, J. W. Henderson, Archibald McGregory, and Dan Kelly. Walter J. Crow and M. D. Hartt, supposed purchasers of railroad land, killed. E. Haymaker, settler, slightly wounded in the head."

"U. S. Marshal Poole, in company with Clark, Crow, and Hartt, first visited the ranch of W. B. Broden; he not being at home his household goods were set out in the street and he afterwards notified of the fact. Intent upon visiting other places for the same purpose, a number of settlers were encountered and at this time the trouble began. Statements of both sides differ materially in regard to the commencement of the firing."

"The following are names of the gentlemen composing the Coroner's jury: J. T. Baker, F. A. Blakeley, W. A. Gray, A. D. House, W. F. Hite, N. W. Motheral, Thos. Jinkinson, H. H. Freeman, J. N. Patterson, E. R. Hulbert, J. S. Robinson, L. L. Moore."

The following resolutions were adopted by the settlers upon receiving the information of the conflict and its results:—

"WHEREAS, we, the citizens of Hanford and vicinity, according to a previous call, had assembled at Hanford with our wives and children to enjoy a social picnic, and freely discuss the questions relating to the unhappy dispute between the settlers and the Southern Pacific Railroad Company, and in the midst of mirth were greeted by the sad intelligence that three of our neighbors and friends had this day been ruthlessly shot and murdered, while three others are mortally wounded by W. J. Crow and M. D. Hartt, who had purchased from said railroad company the homes of some of the settlers on the lands involved in the said dispute; therefore, be it

"*Resolved*, That we feel that the responsibility of the shedding of innocent blood rests upon the Southern Pacific Railroad Company, and that we do heartily deprecate the action of the company, thus inflicting upon our already distressed community this heart-rending calamity.

"*Resolved*, That while we have often heretofore presented our grievances to the Government authorities, we do again humbly supplicate the authorities to take notice of the unjust wrongs being inflicted upon us by said company.

"*Resolved*, That in this hour of grief we pledge our sacred honor and our all to use all honorable means to avert the further shedding of blood, and to urge the settlers to wait the coming, through the channels of the law, of the vindication of our rights against this cormorant, that seems not to be content with unjustly taking our substance and worldly goods, but also seeks to take our lives through hired means in this wholesale way.

"*Resolved*, That these resolutions be published in our county papers, and in all the papers of the State friendly to the oppressed struggling for their homes and all the endearments of home.

W. B. Cullom,
L. C. Hawley, T. W. Standard,
R. T. Sharp. J. J. Doyle,

"The funerals of the victims were largely attended by all classes of citizens of the entire country."

RECEPTION GIVEN THE PRISONERS.

After the five prisoners had served their time at the San Jose Jail, they returned to their homes and the *Visalia Delta* of that date says:—

"The celebration at Hanford on Wednesday, the 5th instant, tendered the returned Mussel Slough men, was an ovation not soon to be forgotten; their welcome on their return home, and the first trial of the James single-track road, were both highly successful. Early in the day, teams commenced to enter the town from all parts, and some from a long distance—even from San Francisco. The exercises and banquet were held in the Hanford Park, and 3,000 people were estimated to be present. At noon the stores were all closed, and after music by the Hanford Silver Cornet Band, Grand Marshal J. G. Pope called the masses to order. Judge Talbot was elected President of the day, and J. W. A. Wright, Secretary. Hon. E. C. Marshall made one of his sharp and pithy speeches, and being in an unusually happy mood, gave, in a most sarcastic manner, both the S. P. R. R. Co.. and the Court who convicted them, a scathing, bitter, scorching. Mr. Marshall occupied about an hour with his speech, and retired amid great applause.

"The released prisoners and their families were then escorted to the rostrum, and seats provided for them, as were also for the families of the unfortunate victims of the tragedy of May, 1880. Letters were read from Congressman Berry, Hon. Robt. Ferrel, Senator Tinnin and others. Carl Browne, J. J. Doyle, and others, made brief and pertinent speeches. Appropriate resolutions were adopted. The feast was fine, and everybody seemed to enjoy themselves. In the evening a grand social dance was given, which was well attended."

Having given some of the leading acts upon both sides of this unfortunate affair, we close by quoting a few words from old resident settlers of the neighborhood. One resident writes us, "Do not imagine that all the settlers were members of the 'League,' or in any way countenanced their proceedings. I have not the date, but in time a 'Settlers' League' was formed, and the leaders and their followers would meet often and talk the matter over, and when they were beaten in every legal process, and the railroad company had their patent to the land, the fact exists that they set themselves up as the rightful owners regardless of the railroad company's patent to the land, or the authority of the United States Government. Another fact exists: The Leagues formed themselves into a military company, who, on horseback and masked, patrolled the streets of Hanford. Mr. Parkhurst was warned to leave the county. Mr. Phillips' house and corral was burned, and the family of Mr. Phillips was turned out of doors, and warned not to be found again on that or any railroad land in the country. These more simple steps leading up to the tragedy, where they went four or five miles and attacked Crow and Hartt; and still there is another fact that some four hours after the fight, and after the United States Marshal and Clerk were escorted out of the county, they, the leaguers, in cold blood, deliberately murdered Crow."

Another old settler writes us as follows: "The real settlers here feel that they were badly injured by a set of demagogues who were very anxious to get something for nothing. They ruined many a poor man that heard to them, and no doubt cost the settlers here a half million of dollars. Whenever there was an opportunity to adjust our land matters, the leaguers were always in the way. They made all the noise. They never were one-fourth of the community, and generally too poor to be injured much by the agitation."

One of our patrons writes us from Hanford that "for a time it was a reign of terror here. Notices were posted warning people not to purchase railroad land as they would not be allowed to hold possession of the same. Men were invited to leave the neighborhood, and some old settlers did leave for the time being. Mr. Parkhurst was obliged to leave. For a day or so the leaguers held possession of the railroad company's depot and telegraph office. It was hourly expected that damage would be done to railroad property, and no doubt would have been had it not been told freely that the damage so done would have to be paid for by the county. The military branch of the league were armed and masked, and paraded the streets of Hanford in the night-time."

We have endeavored to give the main facts, pro and con, of this unfortunate difficulty.

Tulare County Public Schools.

The following valuable article on the Public Schools was furnished us by C. H. Murphy, County Superintendent of Schools.

When Prussia was reduced to an impoverished condition by Napoleon's divesting her of her wealth, influence, and territory, William von Humboldt importuned the king to establish a universal, compulsory system of education as the only safeguard against the ruin of military despotism. The wisdom and foresight of this scheme was thoroughly vindicated in 1872 in her struggle with France, by overcoming her misfortunes in regaining and maintaining a leading and controlling position among the powers of Europe. This triumph was not due to any superior physical force but rather to the power of intelligence. More than a thousand years ago the great Christian Emperor, Charlemagne, proclaimed that all persons participating in the management of the Government must educate the children, in order that intelligence and not ignorance should characterize his reign. "In all ages and in all civilized countries the governing class has been, is, and must of necessity be educated, else the Government can be neither good nor permanent. The very inherent nature of man and of government makes this principle constant and universal."

Notwithstanding the many imperfections incorporated in our system in the pioneer days of California, the wisdom of our best educators and wisest legislators have remodeled it until its efficiency is beyond question. That underlying foundation principle that "An ignorant people may be governed, but only an educated people can govern themselves," was embodied in the first Constitution of 1849, in providing for a Superintendent of Public Instruction, creating a school fund for the endowment of a State University, and establishing a system of public schools by which a school must be maintained in each district for at least three months in every year. Recognizing more fully the efficacy of our school system already established, and believing the ballot to be essential to the protection of individual rights, the State from its first organization provided for a general diffusion of knowledge and intelligence as being necessary to preserve the rights and maintain the liberties of the people.

FIRST RECORDS OF TULARE SCHOOLS.

In the year 1852 Tulare County was organized, and formed by cutting off a portion of the territory belonging to Mariposa County. At that time it embraced all the territory now belonging to Fresno, Inyo, Mono, and a part of Kern Counties, in addition to what it now includes. Of the early progress of the schools the public records give but little information. It is asserted as a fact that the records were made on a slip of paper and carried in the vest pocket of the officer in charge.

FIRST COUNTY SUPERINTENDENT.

The first County Superintendent of Schools, or School Commissioner, was Major Gordon, who was County Clerk and *ex officio* School Commissioner. During his administration the records of the schools were kept in a small memorandum, which at the expiration of his term of office was turned over to his successor. As to the present whereabout of this valuable record and the matter therein contained, time and eternity only can reveal.

FIRST SCHOOL TAUGHT.

The first school taught in the county was in Visalia during the winter of 1853-54. A private house was donated for the purpose and the Rev. Mr. Kennedy, a Presbyterian minister, taught a select school a few months when its existence ceased. Though a scholarly gentleman, and possessing a fund of practical knowledge, the school under his administration was not a financial success.

Visalia school district was organized in 1854, comprising all the territory of the county. Wiley Watson, Dr. H. L. Mathews, and — Thorne were elected trustees. The first public school taught in the county was during the winter of 1854-55, by a gentleman by the name of Carpenter. As the county increased in wealth and population, the people became more interested in schools, and two new districts, Woodville and Tule River, were organized. The Visalia Academy was founded in 1860 by the Rev. B. W. Taylor, a Methodist minister. By his indefatigable industry and sound discretion the school under his administration flourished, the number of students ranging from 100 to 175.

PIONEER TEACHERS.

Four years passed by, and a change in the management of the school, its efficiency gradually declined. Dilapidated ruins now mark the spot of what might have been a proud monument of learning to the city. H. McLean and J. D. Travis, of Tulare City, were among the pioneer teachers of the first decade of the existence of our public schools. During the second decade the school districts increased in number from three to twenty-seven.

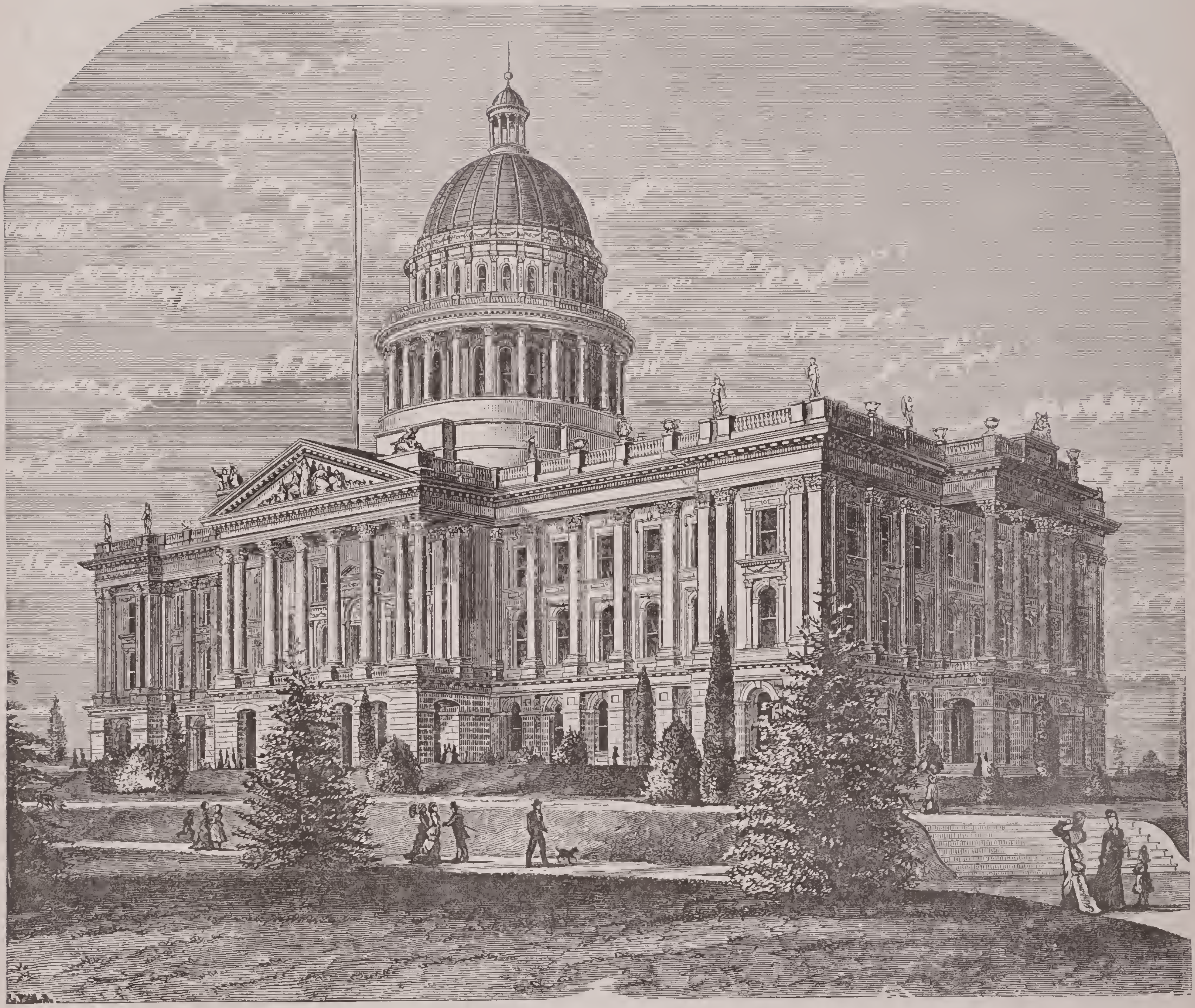
The resources of this valley were now becoming favorably known. For the first time it was ascertained that the land which was thought to be fit for grazing purposes only, could be successfully cultivated, and much of the land hitherto unoccupied was settled by an agricultural people. The dawn of a new era is upon us. More and more interest in education is manifested. The third decade shows an increase from twenty-seven to eighty-three school districts and ninety-nine schools. Both the State and county have contributed liberally to the support of our schools, and districts have cheerfully voted a direct tax for building purposes, or to extend their school facilities.

PROGRESS OF THE SCHOOLS.

The following table will give some idea of the condition and progress of the public schools of Tulare County for the three decades of their existence, commencing at the organization of the county in 1852 and ending June 30, 1883, as gleaned from the official records and pioneer settlers:—

TABLE.

	1853.	1863.	1873.	1883.
Census Children between 5 and 17	18	836	1514	3646
Census Children under 5	Not Taken.		659	1671
Children Attending School	13	348	1178	2758
Children not Attending School	5	488	527	742
Number of School Districts	......	3	27	83
Number Months Taught in each	3	6	7	6½
Average Daily Attendance	7	132	643	1784
Average Monthly Salary	$ 55	$ 70	$ 80	$ 69
Amount of State Funds Received	......	740	4535	31,123
Amount of County Funds Received	......	1014	11,647	14,657
Special Funds Received in	165	380	5,046	2,693
Total Expenses incurred in	135	1642	19,518	53,814
Valuation of School Property	......	325	11,475	33,000



STATE CAPITOL BUILDING,

SACRAMENTO, CAL.

Organization of Kern County.

We have given a general history of the Tulare Valley in the preceding pages, having reference to the whole section before it was segregated from Tulare. There are also many matters in the Tulare County history, such as a description of Tulare Lake, scenery, etc., that are really a part of Kern County.

We shall now mention matters having a direct reference to Kern County as now bounded. As early as 1854 the first discovery of gold was made, it is said by a party of immigrants on their way from Los Angeles. They had camped on a gulch that gashed the Greenhorn Mountain, one of the highest points in the lower Sierra, and had found a rich deposit of gold in the gulch. The news spread, but it was not till 1857 the great rush, called Kern River gold excitement, memorable throughout the State as one of those periodical furores which in former years more than latterly so peculiarly characterized California, was made.

REPORT OF RICH MINES.

A report of rich mines now went out and fortune hunters poured in. The mountains swarmed with eager men, and it was not long till other discoveries were made, and French Gulch, Spanish Gulch, Hogeye Gulch, Bradshaw's, Whisky Flat, Keysville and other places were found equally rich in the precious metal. The placers which had been found in the gulches and bars and flats along the river were soon exhausted and attention was turned to the sources of the treasure, and effort made to discover it. This was soon found in numerous auriferous quartz ledges that showed themselves all through the mountains. One of the first was the Big Blue—the great Sumner Mine—near Kernville, or Whisky Flat, as the place was then called.

This was discovered in 1860. Numerous small leads and one large one called the Mammoth were found near Keysville, and the first mill in the county was erected at that place in 1859. These were very rich but rather small, and as they went down upon them with meager facilities for reduction and limited capital for operation, soon ceased to be profitable and were abandoned.

Keysville was, however, the most prosperous camp in the county for several years, and not till the fall of 1864 did it yield to a rival. By this time placer mining had about given out, and quartz mining had superseded and was then the dominant interest.

EARLY MINING INTERESTS.

The history of the county up to this period is necessarily the history of the mines, that being the only interest up to that time.

In 1863 the Long Tom Mines were discovered and soon fell into the hands of San Francisco capitalists. They erected a mill, developed the mine, and extracted very nearly half a million of money from it in about a year and a half. They then sold it, and it has not been successfully worked since. The mine is still said to be rich, but is not now productive. The famous Joe Walker Mine, near Havilah, was not found till in 1866.

This mine was successfully operated for several years, and yielded large returns, but at a depth of 400 feet a great body of water was struck and the mine immediately filled. Great expenditures were made in pumps and hoisting machinery, aggregating some hundred thousand dollars, and many efforts were made to drain and work the mine, but all to no avail.

One of the first leads that was found in the county was the Big Blue or Sumner Mine. It was worked with varying success by various parties for several years till it at last fell into the hands of its present owners, by whom it is said to have been very profitably worked. One of the finest mills in the State is erected there, running eighty stamps. All the most improved and superior machinery was employed.

As the mines failed to make satisfactory returns, their holders sold or abandoned them, and, with the remnant of their means, they came down to the valley, and sought to better themselves by the less alluring but more reliable occupation of tilling the soil and acquiring a permanent and advancing interest in the county.

FIRST FARMING OPERATIONS.

Up to the period we have mentioned but few attempts at agriculture had been made. In the mountain valleys, Walker's Basin, Linn's Valley, Bear and Cumming's Valleys, Tehachepi, and on the little flats along the Upper Kern River and its affluents were some crude efforts mostly directed to the production of hay and grain, which were about the only articles for which a market could be found, while stock-raising constituted their chief interest. But the great valley and the magnificent delta of the Kern River still remained an impenetrable jungle and an impassable swamp, where the tuneful mosquito sang his evening hymn in peace, the wild hog sought the succulent tule root, and wilder cattle roamed the adjacent and almost boundless plains.

FIRST SETTLER ON KERN ISLAND.

In 1861 the first white man camped and settled on what has been designated as Kern Island. In 1862 two or three others followed, and in a short time they were joined by the late Thomas Baker, familiarly known as Colonel Baker. Here was a man of foresight and judgment. He saw with prophetic vision the great future that was dawning upon the county, and determined to make it his own. He was a man full of grand projects and schemes which he could very well conceive, but in maturing them he was apt to overlook details which, though they appeared to him insignificant and trifling, were not to be despised. At any rate he matured a plan for the reclamation of a very large body of land, for which he received the major portion of the lands so redeemed. From that time on, attention gradually came to be directed to the valley.

MEANS OF COMMUNICATION.

The only means of communication with the outside world at this date was by way of Havilah, whence two stage lines ran, one to Los Angeles and the other to Owen's River—another of those golden fields to which distance had lent enchantment. From Havilah the road ran across Greenhorn Mountain to Visalia. Colonel Baker, with his usual energy, built, at great expense, a toll-road from the foot of the mountain, a distance of twenty-seven miles, to Havilah, and a desultory communication was established.

Kern County Organized.

THE interest of the population had grown so that it was deemed advisable to erect a county government; the passage of an enabling act was procured, and the county was organized in 1866, with Havilah for the county seat.

The county was organized by an Act approved April 2, 1866, entitled "An Act to create the county of Kern, to define its boundaries, and to provide for its organization," as follows:

SECTION 1. There shall be formed out of portions of Tulare and Los Angeles Counties a new county, to be called Kern.

SEC. 2. The boundaries of Kern County shall be as follows: Commencing at a point on the western boundary line of Tulare County, two miles due south of the sixth standard south of the Mount Diablo base line; thence due east to the western boundary of Inyo County; thence southerly and easterly following the western boundary of Inyo County and northern boundary of Los Angeles County to the northeast corner of Los Angeles County; thence south along the eastern boundary of Los Angeles County to the line between townships eight and nine, north of the San Bernardino base line; thence due west to the Tulare County line; thence southerly along the said Tulare County line to the southwest corner of Tulare County; thence northerly, following along the western boundary of Tulare County to the place of beginning.

FIRST MEETING OF SUPERVISORS.

The first meeting of the Board of Supervisors after organization of the county was held at Havilah, the then county seat, as a special meeting on Wednesday, August 1, 1866, for the purpose of organization and the transaction of business. Henry Hammel and J. J. Rhymes were present. Said meeting being held pursuant to the Act of the Legislature "creating the county of Kern, to define its boundaries and to provide for its organization." This meeting proceeded to lay out and organize three townships numbered one, two, and three.

FIRST TAX LEVY.

The first regular meeting of Board of Supervisors was held August 2, 1866, at Havilah with Messrs. Hammel and Rhymes. The following taxes were levied on each $100 of property:—

For State purposes	$1.05	
" " Capitol Fund	.05	
" " insane asylum	.03	
" " school	.08	$1.21
County Tax:—		
For current expenses	$ .60	
" school purposes	.35	
" road	.25	
" county hospital	.20	$1.40
Total tax levied		$2.61

COUNTY GOVERNMENT STARTED.

The County Auditor was authorized to expend not exceeding $1,000 in purchasing necessary books, stationery, and office furniture, seals for the different courts, etc.; and the County Clerk was authorized to make these purchases.

Proposals were also advertised for building a county jail. A building belonging to Hammel and Denker, at Havilah, was leased for county purposes temporarily.

A committee of F. A. Stoutenburg, P. T. Colby, E. E. Calhoun was appointed to report upon a suitable lot or piece of ground for erecting a Court House.

A regular meeting of the Board of Supervisors was held August 6, 1866. There were present, Messrs. H. Hammel, J. J. Rhymes, and S. A. Bishop.

The committee reported in favor of purchasing a lot from H. C. Harding for $800 for erection of county buildings. A contract for building a jail was awarded to Thomas B. Stuart for $1,600.

The salary of Clerk of the Board was fixed at $250. That of Auditor was $320.

At the February session, in 1867, the Board fixed the rate of taxation as follows:—

The State tax	$1.13
For current expenses	.60
" road "	.20
" hospital "	.20
" school "	.35
Total tax	$2.48

The Treasurer was authorized to purchase a safe at an expense of $400. The claim of J. R. Riley, of $53.00, for services performed as Superintendent of Schools, was rejected.

FIRST COURT HOUSE.

At the meeting of the Supervisors, August 5, 1867, was accepted the building erected on the public square in Havilah, for a Court House, which had been constructed by F. H. Binnix, for the sum of $2,200.

EFFORTS TO REMOVE COUNTY SEAT.

The valley part of the county was steadily growing by a stream of hardy and enterprising population, and so considerable had become the interest here centered that soon an effort was made to remove the county seat from the decayed mining camp at Havilah to the new and aspiring valley town of Bakersfield. The first effort failed at the time, but the struggle was kept up until accomplished. Those who favored Havilah argued that Bakersfield was entirely in the western edge of the populated portion of the county; that the location "is most unfortunate on account of its being the most unhealthy spot in thew hole Tulare Valley;" that the people would be compelled, in discharge of their duties as citizens, in attending the sessions of the courts, as jurors, witnesses, or litigants, and also in transacting such business as may require their attendance at that place, "to subject themselves to the danger of contracting diseases, as persons going there from our healthy, bracing atmosphere, are almost in every instance sure to do." "The diseases there are not merely the ordinary chills and fever, but usually it assumes a most virulent type, which prostrates a person for months, and sometimes proves fatal in a short time, or leaves the unfortunate victim in a dilapidated condition, which requires months to recover from."

In November, 1872, a petition having been presented, praying for a removal of the county seat, it was ordered that an election be held on the 15th of February, 1873. At this election, from some irregularities, the votes of three precincts were thrown out by the Supervisors, but were afterwards ordered to be counted, by the Court, as here given:—

PRECINCTS.	HAVILAH.	BAKERSFIELD.
Havilah	97	—
South Fork	33	1
Hudson's	—	14
Walker Basin	—	10
Kern Island	5	265
Long Tom	—	14
Tehachepi	40	18
Bear Valley	4	22
Alpine	—	12
Sageland	22	1
Linn's Valley	38	23
Kernville	72	—
Clarville	21	—
Total	332	370

This election gave a small majority to Bakersfield, but the result was hotly contested. Another year was consumed in costly and acrimonious litigation before the seat was finally located at Bakersfield.

The injunction suit was commenced in the month of May, 1875. The county expended, by warrants on the treasury, in the conduct of the suit, the sum of $2,237.80. During the three months' delay caused by injunction, the county paid rent for a court room $150, and for county offices about $250. The costs in the action amounted to about $400, making a total of $3,037.80.

In February, 1874, the Supervisors ordered the Town Hall of Bakersfield to be designated as the court rooms of the county.

FIRST COUNTY OFFICERS.

The officers first acting after organization of the county were: W. B. Ross, Sheriff and Tax Collector; H. D. Bequette, Clerk, Auditor, and Recorder; R. B. Sugdy, Assessor; Joseph Lively, Coroner; E. E. Calhoun, District Attorney; D. A. Sinclair, Treasurer. These were all appointed. The first election was evidently held on the 12th of July, 1866, but no record of that election can be found. The inspection of official acts at that date shows Thomas Baker as County Surveyor, and E. W. Doss, School Superintendent.

FIRST DEEDS RECORDED.

The first deed recorded for Kern County was put on the book July 23, 1866, being for a lot in Havilah, from H. C. Harding to James R. Watson. This entry was made by William Tyler, the present faithful and competent Auditor and penman.

The first deed to any lands within the boundaries of Kern County was of date April 28, 1856 (then Tulare County), from William Packard to C. D. Luckey, it being the pre-emption right to the so-called "Packard Ranch;" consideration, $200 coin. It was recorded May 2, 1856.

FIRST GRAND JURY.

This jury was drawn at Havilah, November 5, 1866, as follows: W. W. Hudson, Foreman; Robert Palmer, W. T. Henderson, Thomas H. Binnix, J. P. Swearengen, B. T. Mitchell, W. H. Williams, M. H. Erskine, E. R. Burke, Solomon Jewett, Edward Tibbett, V. G. Thompson, Henry Pascoe, J. J. Murphy, J. S. Totty, Daniel Munckton, W. D. Ward, T. W. Barnes, Stephen Chandler, and Isaac Lightner.

FIRST TRIAL JURY.

This jury consisted of the following persons: H. L. Todd, Charles Anderson, V. G. Thompson, W. G. Sanderson, Daniel Williams, H. O'Neal, Charles Hickish. The action was tried September 8, 1866:—

J. N. Medbury et als } Unlawful entry and forcible detainer.
vs.
M. S. Law.

Attorneys for plaintiff, J. M. Freeman and Thomas Laspeyre; attorneys for defendant, B. Brundage and E. E. Calhoun.

THE FIRST ASSESSMENT ROLL.

We find, by reference to the first assessment roll of the county, that the assessed value of all the real estate in the county amounted to the sum of $109,060. The personal property, consisting mostly of stock and machinery, is put down at $651,702, giving a total of taxable property $760,762. That was in 1866—seventeen years ago. In 1883 the property roll of the county showed about $7,000,000. That is what may be called a pretty fair ratio of increase in one decade. When we come to consider also that this increase has accrued almost entirely during the latter half of the decade, it will appear most extraordinary.

NEW COURT HOUSE ERECTED.

Plans for a Court House were duly advertised, and in 1874 those of A. A. Bennett were adopted and the work of erection began. The corner-stone was laid amid injunctions and bad feeling, yet everything, however, went off very well, better than could have been expected in view of the fact that there were but a few hours in which to make the preparations. The Masons and Odd Fellows turned out in their respective regalias, and marched with the insignia of their orders to the ground. B. Brundage, Master of the Bakersfield Lodge of Masons, was chosen to perform the ceremony. The stone was a rather small one and was suspended over the place of deposit ready for the application of the mortar. When the orders had filed into their respective places, the choir, composed of Mrs. Hunt, Mrs. Willow, and Mrs. Condict, Mr. Olds, Dr. Ormsby and Mr. Johnson, opened the exercises with an appropriate song. The Master of the lodge then applied the mortar, and the stone was lowered into its place. He then read the formula prescribed for such occasions, and the choir sang, and the ceremony was over. The following souvenirs were deposited under the stone in accordance with usage:—

Copy of the Holy Bible, History of the Organization of Kern County; Impressions of the Court and County Seals; Organization of the Town of Bakersfield; Organization of Kern Lodge, No. 202, I. O. O. F.; Organization of Bakersfield Lodge, No. 224, F. and A. M.; Copy of Great Register of Kern County; C py of Kern County *Weekly Courier;* Copy of *Southern Californian;* Copy of S. F. *Daily Bulletin;* Copy of S. F. *Alta Californian;* Copy of S. F. *Morning Call;* Copy of S. F. *Examiner;* Copy of S. F. *Chronicle;* Copy of Sacramento *Weekly Record-Union;* Copy of Original Map of Town of Bakersfield; Copy of Constitution and By-Laws of Kern Lodge, I. O. O. F; Package Miscellaneous Coin.

Although no one knew anything about it six hours before, there was a large attendance of people to witness the ceremonies. Many carriages with ladies, were present, and much interest was manifested. Members of the respective lodges, from all parts of the county—among them some who had strenuously opposed Bakersfield in the county-seat election—exhibited a frank and friendly spirit by appearing in the procession and assisting at the ceremonies.

COUNTY BOUNDARY SETTLEMENTS.

The Legislature passed a law in March, 1868, for adjusting the debt between the counties from which Kern was formed, and W. L. Kenneday, E. E. Calhoun, and A. D. Green were allowed $750 for services in settling the debt due by Kern County to Tulare and Los Angeles.

In August, 1869, Geo. W. Orth, Deputy County Surveyor, was allowed $1,938 for services in running the boundary line in conjunction with the Surveyor of Los Angeles County. The line between Los Angeles and Kern Counties, as now existent, was agreed upon and run by Geo. W. Orth, for Kern County, and Wm. P. Reynolds, for Los Angeles County.

The county was divided by Supervisors in August, 1880, into the following townships: Bakersfield, Sumner, Linn's Valley, Poso, New River, Panama, Tejon, Tehachepi, Caliente, Mojave, South Fork, and Havilah. They also organized twenty-seven voting precincts.

Geographical Features.

WALKER'S PASS.

It was not until 1850 that Capt. Jo. Walker discovered the pass through the Sierra Nevada Mountains which leads into Tulare Valley, although others attribute the discovery to Jedediah S. Smith, as far back as 1825, while trapping in the service of the fur company of which General Ashley was the chief in command in the mountains. It is clear at all events that, whomsoever discovered the pass, it was never utilized to the purposes of emigration and travel until it was made generally known by Capt. Joseph Walker in 1850, when he pushed through it after his explorations in the country of the Moqui Indians, supposed to be a remnant of the ancient Aztecs, in which he saw the ruins of old and massive habitations, pyramids, castles, pottery, etc., which gave evidence of a very remote and advanced civilization. These ruins he found between the Gila and San Juan Rivers.

They are believed to mark the site of the great city of Grand Quivera, or Pecos, the most populous and grandest of that race, now long extinct. Walker found his way through the pass from the Mohave Desert into Tulare Valley. It was ten miles from plain to plain, and on his way he traveled along the headwaters of Kern River. General Beale afterwards traveled the same region, going eastward by the southern route.

In 1844, Captain Walker resolved to make his home in California, here in the Territory where so many of his old and beloved comrades had fixed their abode. That year he left for the States with a band of horses and mules, with a party of eight men to accompany him. Col. John C. Fremont was then in advance of him, on his return to the East after his second expedition to this coast.

Joseph R. Walker, the discoverer of "Walker's Pass" through the Sierra Nevada chain, leading from the great basin into Tulare Valley, was born in Knox County, near Knoxville, Tennessee, in the closing year of the last century. He is thus sketched by Washington Irving in Bonneville's Expedition:—

"J. R. Walker was a native of Tennessee, about six feet high, strong built, dark complexioned, brave in spirit, though wild in manners. He had been for many years in Missouri on the frontier; had been among the earliest adventurers to Santa Fé, where he had gone to track beaver, and was taken by the Spaniards. Being liberated, he engaged with the Spaniards

Wm Tyler.

A B Macpherson

A. S. Lightner.

ELLIOTT. LITH. 421 MONT. ST.

and Sioux Indians in a war against the Pawnees; then returned to Missouri, and had acted by turns as Sheriff, trader, trapper, until he was enlisted as a leader by Captain Bonneville."

Captain Walker ceased from his accustomed toils and fatigues about ten years before his death, and made his home, in peaceful contentment, with his nephew, James T. Walker, in Ygnacio Valley, Contra Costa County, from which he occasionally paid visits to his elder brother, Joel, in Santa Rosa, and to prized friends in other parts of the State. But he was happiest in the quiet of that fond home, and there he died, October 28, 1876. His mortal remains repose in Alhambra Cemetery in Contra Costa. He lived to the green old age of seventy-six years.

KERN ISLAND.

This piece of land was so called because in former times it was surrounded by water of the Kern River, the South Fork, Kern Lake, and Old River. It is of irregular shape, being narrow at the northern extremity where Bakersfield is situated, and widest at the south, where the artesian belt commences. It contains about 85,000 acres, very little of which is waste land.

On this Kern Island nearly all the first attempts at settlement were made, some of them by Mexicans as far back as 1856. As far back as the time Bakersville was laid out, it was little better than a desert.

SAGE-BRUSH LANDS.

The prevailing opinion with regard to the sage-brush land was that they were worthless for agricultural purposes, and they were usually resigned to the undisputed dominion of the rattlesnake, the tarantula, horned toad, and other pets of a similar nature. But the fact is, no better land in this, the garden of the State, than some of the sage-brush land. A good growth of sage-brush is evidence of a good deposit of soil. In some places there is too much alkali, and the impression is quite common that sage-brush land must be alkali land and unfit for cultivation. This is an error. Sage brush is about the only thing that will grow on alkali land, but it does not follow that all land upon which sage brush grows is unfit for the production of anything else.

There is more or less alkali in every inch of soil in the valley, but only in rare spots is there sufficient to offer any obstruction to successful cultivation. It is the presence of this alkaline constituent in the soil, in the proper proportion, that makes it so fertile. The salt of the earth is a hackneyed phrase, but it expresses the strength and vigor. The alkali is literally the salt of the earth. The fine crystalline particles in the soil have a great affinity for water, and it will be observed by anyone who will take the trouble to notice, in support of this assertion, that watery percolation or absorption prevails to a much greater extent in lands that have a large proportion of alkali than those that possess less. The existence of sage brush is evidence of rich soil, for it will not flourish in sandy soil.

The different characters of Kern County soil can be very easily determined by any one of a little experience and observation, by the native product upon them, and the same soils under different conditions will yield a different native product. On the higher lands, or lands not yet brought under irrigation, the sandy soils are clear and open, and in the spring-time they bear a profusion of wild flowers, and the lines between that and the sedimentary soil can be as distinctly and accurately traced as if it were fenced off, by the growth of sage brush it bears. The sage-brush land is mellow rich soil; the brush is easily burned off, and the land is easier to plow than any other.

LARGE RANCHES.

The following is a list of the original Spanish land grants, and present owners:—

NAME.	NO. OF ACRES.	OWNER.
Rancho San Emidio	17,709	Haggin & Carr
Rancho Castaac	22,178	Gen. E. F. Beale
Rancho Los Alamos Yagua Caliente	26,626	" "
El Tejon	97,612	" "
La Liebre	30,685	" "

In addition to this list, Messrs. Haggin & Carr have large amounts of irrigated land in the main valley, from whom we could obtain no information, nor would they render any assistance in preparing this history. They virtually claim to own the whole of Kern River. They filed appropriations for more cubic feet than ever passed through the great cañon except in times of flood. They purchased the only canals not in their hands, and they now have absolute control of all the water.

Kern County at one time was congratulated on having so few Mexican grants, but it is a question whether the present absorption of small tracts of the fertile valley by one firm is any better system.

No other county in the State, possessing tracts of land similarly situated, and of equal value, has escaped these Mexican mortgages, many of them, no doubt, fraudulent; and Kern owes her deliverance to the fact that these very lands were not considered worth claiming.

SMALL EMPIRES.

There are but five Mexican grants in the county, and not one of them extends into the valley, but are located, and the boundaries long since established and confirmed, in the mountains east and south.

The largest is the great Tejon Ranch, stretching along the foot-hills and into the Sierra Nevada on the east wall of the valley, a distance of some forty-five miles. It contains 97,616 acres. The Castaac grant, comprising 22,178 acres; Los Alamos, with 26,626, and Los Liebre, with 48,840 acres, join it to the south and east—the four grants comprising a small empire of 195,260 acres. Other small tracts adjoining have been purchased from time to time, until the whole property exceeds

200,000 acres. It is all in Kern County, with the exception of the Liebre grant, which is divided by the Kern and Los Angeles boundary line, leaving 30,685 acres in Kern and 18,155 in Los Angeles County.

As stated, there are but five Mexican grants in the county. Strictly speaking, there are but two, for four already named really constitute but one estate. One other, called the San Emidio, is in the mountains of the same name, which constitute the southern boundary of the county; contains 17,709 acres, and is now the property of Messrs. Haggin & Carr. It is devoted to stock-raising, to which alone it is admirably adapted; and the proprietors are among the most extensive and successful cattle raisers in the State. They have, by purchase, extended the lines of the original grant considerably, and have also acquired some lands in the valley, which are seeded to alfalfa, upon which latter they may fatten their cattle and prepare them for market.

GENERAL BEALE'S LARGE PROPERTY.

The names of these grants are of Mexican or Indian origin, "El Tejon" signifying the badger; "Los Alamos," the elm trees, and "Los Liebres," the hare; while the "Castaac" is supposed to be of Indian derivation, and is of unknown significance. This magnificent estate is the property of Gen. E. F. Beale, late United States Minister to Austria. This great tract is composed exclusively of mountain and foot-hill lands, and their chief value is for grazing purposes. They are, no doubt, too, rich in various minerals, as the great chain which composes them is known to be, both north and south of the boundaries. The proprietor has never encouraged prospecting, however, on his property, and nothing of value has been developed. It is not likely that if some accident were to reveal a valuable deposit of mineral on the grants, it would become known, for various reasons, for a long time.

There is a great body of fine timber on the Tejon, and General Beale may boast of owning as fine and possibly as extensive hunting-grounds as there are on any private estate in the United States. There is very little arable land on the estate, and it is entirely devoted to stock-raising, for which purpose it has no superior in the State.

At the point of meeting of the two great chains, the Sierra Nevada and the Coast Range, the topography of the country presents a peculiar appearance, as of a long, rolling swell of the sea, suddenly intercepted and broken into confused and distracted fragments. Contrary to expectations, there are few precipitous places. On the western side the rise of the range is more abrupt, but on the eastern side the country falls away in dwindling hillocks until lost in the wide and weary wastes of the Mojave Desert. This is the great feeding-ground for stock. The very summits yield abundant and luxuriant grasses.

The Tejon Ranch is the residence of General Beale, whenever he is at home; and it is situated a few hours' ride from Bakersfield, at an elevation of 500 feet. A fine view of the valley is obtained from this location. All kinds of semi-tropical fruits grow here in great variety. Many settlers have found desirable locations near this ranch, both in this and Los Angeles County. Up the mountain are many nice farms in the small valleys, and further on are found fine forests. The old and noted Fort Tejon Stage Station is on one of Beale's ranches.

Rivers and Lakes.

KERN RIVER.

This stream, from which the county derives its name, was formerly termed by the Mexicans *Rio Bravo*. It derived its present name from a Lieutenant Kern, formerly one of Fremont's exploring party. It is one of the largest of the Sierra Rivers, and gives to this region, in a system of interior lakes, a notoriety arising from so peculiar a characteristic. It traverses nearly the entire county, passing from east to west, entering it near Walker's Pass on the east, and emptying into Goose Lake at the base of the Coast Range on the west.

This magnificent stream that pours a constant, mighty flood of water into this capacious valley is, next to the Sacramento, the longest river in the State, and flows from sources that are as certain and never-failing as the recurring seasons. It takes its rise principally among the loftiest peaks of the Sierra Nevada, Mts. King, Tyndal, Williamson, and Whitney. Thence it pursues its way southward between ridges of the Sierras, in the direction of Walker's Pass, when it bends to the westward, and enters the alluvial part of the valley near Bakersfield.

Its size appears less than it really is, from the torrent-like rapidity of its course, which suggested its Spanish name, *Rio Bravo*, and which is kept up to the end, the fall from the foothills to the lakes being about ten feet to the mile. This, however, together with low banks, adds to its value for irrigable purposes, making the diversion of water and its distribution over the country comparatively easy. As it takes its rise among the highest mountains on the continent, it is evident it must be principally supplied from the vast deposits of snow there accumulated. These feel the influence of the sun about the 1st of June, and from that time until the 20th of July, when it decreases, the volume of water which rolls into the valley, charged with sediment, is immense. The annual rise of Kern River is as opportune as that of the Nile.

SIZE OF KERN RIVER.

The meanderings of the stream make the length of the river from its source to the point at which it loses itself in Kern Lake a distance of over two hundred miles. One of its strongest affluents is fed by the glaciers of Mt. Whitney. The course of the stream is almost southward for a distance of about a hundred and fifty miles through the broken and irregular mountains of that part of the range, till it reaches a point nearly due east of Bakersfield, when it plunges precipitately through an inaccessible gorge or chasm in the mountain wall into the valley, and thence runs almost due west to the lakes. It has a vast water-shed to drain, and is sustained by the great deposits of snow in the mountains. It will be at once understood then that the supply of water is greatest long after the rainy season is over, when freshets and overflows prevail in other parts. Usually the real summer weather is deferred till the beginning or middle of June, and so the high water in Kern River follows the melting of the mountain snows.

It spreads into devious channels, making a large delta, which is called Kern Island. So capricious is the stream that a slight impediment made it fly of on a tangent, a few years ago, cutting a new channel, whose mouth was fifty-five miles from that of its original bed. Kern and Buena Vista Lakes receive the water of the river, and, in turn, discharge it into Tulare Lake. Some of the most productive farms in all California have been made on Kern Island, within the past few years, where naught but grass and sage brush formerly grew. This has been accomplished by means of a liberal expenditure of capital in the construction of irrigating canals, which now ramify all parts of the island. Without irrigation very little would be produced in Kern County. An ample supply of water is furnished by Kern River, which has a drainage area of 2,382 square miles. The annual rain-fall of the valley rarely exceeds three to four inches, which is insufficient to mature any kind of crops. There are a number of large ranches under cultivation and irrigation.

PERILOUS PASSAGE OF KERN RIVER GORGE.

The redeeming feature of Kern County is the noble river that heads in the mountain fastnesses of Tulare County, and breaks through the titanic hills down a steep precipitous gorge, descending many thousand feet in a few miles and rolling out upon the plains a life-giving flood. But one living man ever passed through this cañon.

We give the following graphic account of this trip taken from the *Californian*:—

"Mr. Warren Frazier last week performed a feat which in the annals of the country has never before been achieved by man—the passage of the gorge of Kern River. The *Rio Bravo*, which was the name bestowed upon it by our Spanish predecessors in the possession of the country—signifying bold and powerful—after passing its devious course among rugged and inaccessible mountains, deep and rocky cañons, plunges through a rift as it were in the main range of the Sierra and escapes into the great valley. Many attempts have been made to follow it through this dark and forbidding chasm, but without success. At its very entrance the raging water hissed and howled a fierce remonstrance, and from its dark, mysterious recesses a warning thunder came that might well appall the rash adventurer who sought to penetrate its ominous depths.

"Tradition tells of many unwilling and unfortunate victims who have been swept into its cavernous jaws, of whom no shred or sign has e'er come back to waiting comrades. The river is now at about its lowest, and the time for the attempted passage, therefore, was most propitious. Mr. Frazier has long contemplated the project, and had chosen the time with that view. Preparing himself with only a trusty staff and a short rope, he entered the gorge about thirteen miles above its mouth. Although this is not the entire length of it, Mr. Frazier believed it the only difficult portion to traverse. The water, confined to its narrow and rocky channel, is deep and dangerous, but in most places the water had receded sufficient to permit him to pass along the bottom. In some places he was confronted by perpendicular precipices hundreds of feet in height, when he was compelled to retreat and surmount by gradual approaches, finding equal difficulty again in descending. His rope did him good service for he was enabled to let himself down when his progress would have been effectually debarred without it.

"Having once embarked in the hazardous enterprise, retreat was impossible, and the conviction that he could hope for no human assistance—that he must accomplish the passage or perish—inspired him with renewed energy to overcome obstacles that seemed to multiply and grow more formidable at every step. Four times during the descent the walls of the cañon closed in on him so effectually that his only escape was by swimming the river.

"In places this was extremely perilous, as he was liable to be swept into rapids, over falls, or into eddies, and bruised or drowned before he could extricate himself. His only safety lay in the comparatively small volume of water in the river; and as it was he was most fortunate to escape without a serious mishap. In its passage through the cañon the river falls very fast, and the current therefore is very rapid. In several places there are perpendicular drops of ten or fifteen feet, while in others the river rolls its tumultuous and resistless torrent with a shock and roar of thunder. Finally after eight hours of toil and danger, Mr. Frazier reached the mouth of the cañon, an exhausted but triumphant man. He frankly confesses that his curiosity is satisfied, and that if he had known what an undertaking he had before him, he should never have attempted the passage of the Kern River Gorge."

BUENA VISTA AND KERN LAKES.

The area of Kern Lake, at an elevation of about 287 or 288 feet, is 8,298 acres; and of Buena Vista Lake, 16,130 acres. Their present elevation is 282 to 284 feet, and their area one-fourth to one-third that given in the above figures. They are shallow, and fringed with a border of swamp lands, and are almost unapproachable on the south and west, on account of the deep, slimy ooze composing their banks and bottom. Their present maximum depth is six to ten feet. The slough connecting them is deep and tortuous, 100 to 150 feet wide, and twelve to thirteen miles long, with firm banks of tule sod three to five feet high. The lakes, occupying the lowest part of the valley, naturally receive the drainage of the irrigated lands of Kern Island, which furnishes a partial equivalent to the great loss resulting from evaporation. They have a natural high-water outlet, through Buena Vista Slough, toward Tulare Lake, but this outlet has been cut off by a levee thrown across the head of Buena Vista Lake, preventing the river from discharging into it, or any water escaping therefrom.

In the vicinity of Buena Vista Lake the land has the appearance of being very fertile. It is very uniform in surface and slope, but is underlaid with a deposit of alkali, which, with irrigation, is brought to the surface as a thick, white efflorescence, destroying vegetation. With good drainage and skillful application of water, the alkali may ultimately be washed out. An experiment on an extensive scale, made a few years ago, proved a failure, after an expenditure of some $20,000 in ditching, preparation of land, etc., and it is possible that the soil is irreclaimable at reasonable cost.

OTHER RIVERS AND STREAMS.

There are several small streams flowing into Kern Valley on the east and south, which may be utilized for irrigation to a large extent, if the waters were properly collected, and the supply saved and developed.

The largest of these intermittent streams is Caliente Creek, which, however, is a torrent for a short period, and dry during the greater portion of the year.

TEJON PASS CREEK.

Tejon Pass Creek carries, in ordinary seasons, a considerable volume of water, until May or June each season. It discharges about seven and one-half cubic feet per second at the Tejon Reservation, where it is used for the irrigation of six acres of orchard, and seventy-five acres of alfalfa and grain. A number of Tejon Indians have homes along the stream above the reservation, and use its waters for irrigating small patches of garden and grain, amounting to nearly fifty acres altogether.

Tejon Creek has about the same volume as the former, and is also used to some extent by the Indians for the irrigation of their small gardens. Both these streams are clear, beautiful mountain brooks, tumbling rapidly into the valley, and disappearing in their rocky beds as they emerge from the foot-hills.

OTHER MINOR STREAMS.

The Tecolla, Cañada de las Uvas, and the San Emidio Creeks are the three other most important mountain streams that drain into the basin of Kern Valley from the south. They are used to some extent for irrigation. The foot-hill lands which these streams can be made to supply, are well adapted for fruit growing, and have a salubrious climate.

Agricultural Resources.

PROBABLY no part of the Pacific Coast is so apt to produce a favorable impression on the mind of the traveler of agricultural proclivities, as the delta of Kern River. A small part of it only is under cultivation, but the irrigating canals, having filled the soil with water to within a few feet of the surface, its latent fertility is developed, and the uncultivated portions are covered with a luxuriant growth of grass and vegetation, while the occasional fields of alfalfa that are met with, presenting still ranker and more attractive expanses of verdure, give practical illustration of what the soil is capable, if the natural promise were not sufficient. The growth of trees is particularly strong and vigorous, and the number that have sprung up and attained to considerable size within a few years is remarkable.

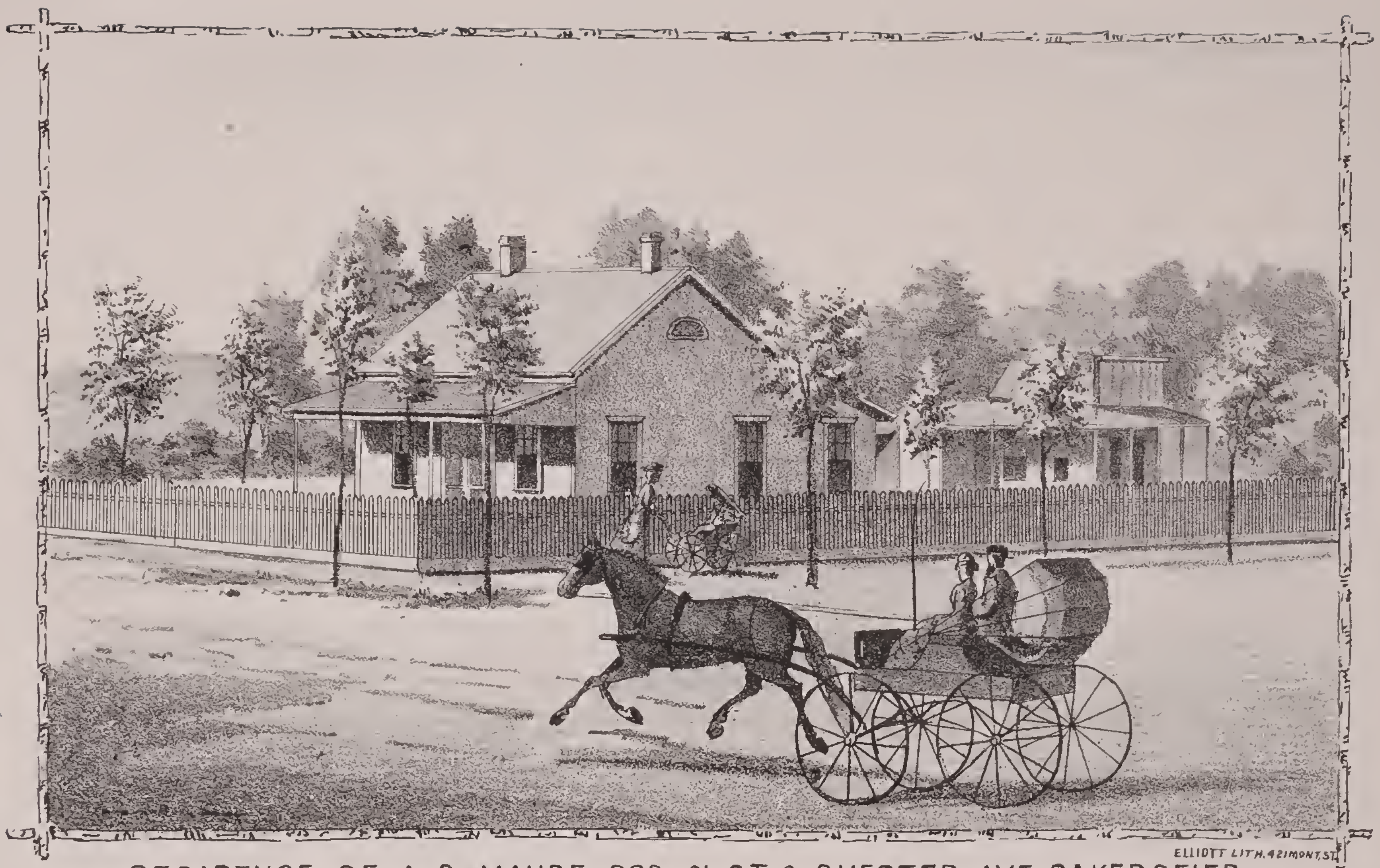
Many parts of the delta have already assumed the appearance of well-wooded tracts, and doubtless, if there were nothing to check the natural process going on, they would soon become cottonwood forests. The soil is a friable loam—not the hard, stubborn adobe that prevails in many other valleys of the State; and the stranger sees nothing in present appearances, which have gradually come about by the filling of the soil with water, to indicate its fertility and capacity for production.

VALLEY IN NATIVE STATE.

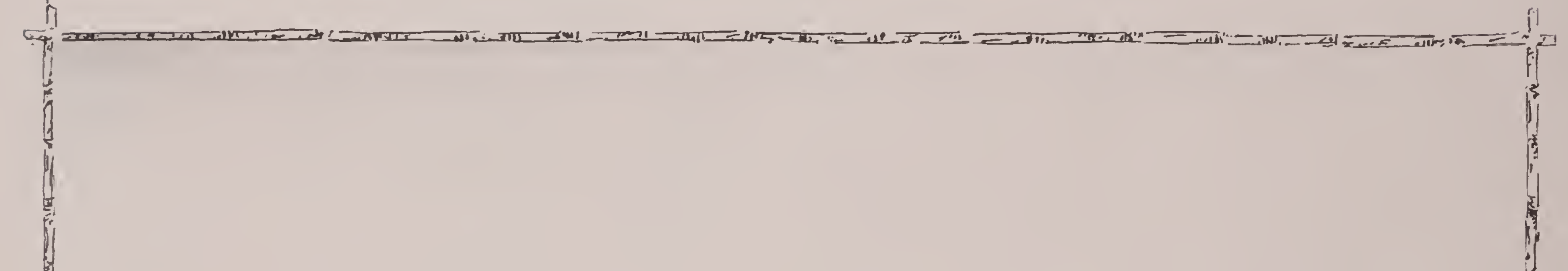
It is within the memory of many now in Kern County, and comparatively only a few years ago, when vast herds of wild horses roamed over the San Joaquin Plains, in native freedom. Great droves of elk and antelope, too, at certain seasons, found their way to the rich pastures along the streams. Only a few years ago, deer were found in the thickets on Kern River, within a couple of miles of Bakersfield. But the wild horses and the elk have been driven from their domain by the encroachments of man, the common enemy. The latter have left many evidences of recent tenancy, in the shape of splendid full-grown antlers of extraordinary size and symmetry. Antelopes are still to be found on the plains, but are rapidly disappearing.

But the native animals did not monopolize this great feeding ground. It was the old Spanish missionaries that introduced common horned cattle, as, indeed, they did also the horses. The missions were founded along the coast, and the locations selected betoken an accurate knowledge of the entire country, as well as a great deal of business craft and wisdom, as they have invariably been found to occupy the best and most eligible sites.

They turned their cattle loose and let them roam and multiply. They found their way through the Coast Range, and out into the great valley of the San Joaquin. Here they


ELLIOTT LITH. 421 MONT. ST.

RESIDENCE OF A. C. MAUDE, COR. 21 ST. & CHESTER AVE, BAKERSFIED.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JEWETT'S RANCH, PROPERTY OF S. JEWETT, BAKERSFIELD, KERN CO. CAL

increased with incredible rapidity, and we find the missions at their annual *rodeo*, branding their hundreds of thousands of cattle and horses. Sheep were of later introduction, but these did not constitute so great a source of wealth as cattle.

EARLY STOCK-RAISING.

Under the system of stock-raising practiced in this State, and which had come down to us from the early Mexican times, the valley had become the feeding ground for hundreds of thousands of wild cattle. Once a year those who claimed them would gather them in the general rodeo, brand their calves, and drive off what they wanted, while they turned the remainder loose to run another year, and increase and multiply as they might. Their claimants and owners lived in adjacent, some of them in remote counties, paid little or no taxes in this county, and probably evaded it everywhere. The land belonged to the Government, and when the settler, seeking to make a home for himself and family, pre-empted his quarter-section and went to work to cultivate it, he found that he must dispute possession inch by inch with hordes of predatory cattle. No fence that he could erect would protect his scanty crops. An appeal to the owners to take their cattle away was met with derision, and much bad feeling between the stock and agricultural interests was the result. The people sought relief in the shape of a trespass law known as the "No Fence Law." Hon. T. Fowler, who was one of the chief of the cattle owners, managed to get returned as Senator from this District, and became the champion of the cattle men in the Legislature, and so vigorously did he prosecute his designs that he successfully resisted all efforts to obtain the passage of a relief law With the expiration of his term, however, though he desired to succeed himself and ran again, the people utterly repudiated him, and the result was that the next Legislature gave the much coveted and long-sought law.

In this manner the stock-raising business originated, and the system then inaugurated has been perpetuated down to the present day, and is still largely practiced throughout the State. The land, however, heretofore occupied by wild cattle, has been found to be more valuable for agricultural purposes by the enterprising yankee, and the cattle interest has had to seek other pastures. The Kern Valley was one of the last great agricultural tracts in the State thus surrendered by the cattle men. They had enjoyed the undisturbed possession of the pasture so long that they thought they had acquired rights which were entitled to respect, and vigorously resisted anything that might interfere with them.

They had been accustomed to make a triumphal march through the county once a year, gather their herds, brand their increase, and turn them loose to go on, driving off perhaps a few thousand of the finest to market to furnish them with pocket money. But the land was Government land, and the hardy settler seeking a home for himself and family saw that this was the place to do it. When, after many struggles, he obtained an enactment of the Legislature affording him some protection from the wild cattle, the general doom of the valley was foretold, and no doubt many honestly believed that the promotion of the agricultural interest involved the decadence of the cattle interest, and with that the general welfare.

PROTECTION OF STOCK

For the protection of the stock-raiser there has been formed the "Southern Californian Stock-Raisers Defense Asssociation."

"Second—The object of said association shall be to procure information that will lead to the conviction of persons engaged in killing, wounding, or stealing horses or cattle belonging to members of the association, and to prosecute all such persons to conviction, and for the purposes aforesaid we mutually agree to do our best endeavors to accomplish the object aforesaid."

"Any person engaged in raising horses or cattle, within the counties of Kern, Tulare, or Los Angeles, may become a member hereof by letter indicating his desire to do so, and all persons at the time they become such members, and at such other times as the Committee may require, shall furnish to the Secretary the number of cattle or horses owned by them."

The original members were: J. B. Haggin, J. C. Crocker, W. Canfield, E. F. Beale, Miller & Lux, W. B. Carr, J. S. Ellis, Sol. Jewett.

At a meeting of the association held on the 11th day of November, 1882, Dr. G. F. Thornton was elected President, and A. C. Maude Secretary, and the following members were elected Executive Committee of said association, to wit: G. F. Thornton, J. C. Crocker, and R. M. Pogson.

The old long-horned Spanish cattle are giving way and gradually disappearing. Stockmen have learned that it does not cost as much to feed gentle cattle of superior breed that will carry a thousand or twelve hundred pounds per head as it does to feed the big-boned Spanish cattle that will hardly kick the beam at the moiety of the former. There can be no doubt that in a few years the Kern Valley will be the great stock-breeding tract of the State.

The sheep business has been very profitably conducted here for many years. As long as there were vast tracts of Government lands to feed on and no rent to pay, there was large profit in it, but the sheep men had no real interest in the county, and did little or nothing for its development. But as the land became settled, the wild range became circumscribed and constantly diminished, and the tendency has been, of course, to reduce the number of the flocks, to breed up and improve the wool and the mutton so that the business would pay an interest on the lands cultivated as well as the capital employed in the stock. This has been successfully done by several, and others are preparing to follow them as rapidly as they can.

PROGRESS FOR TEN YEARS.

At the time the cattle interest predominated, the assessment roll, fifteen years ago, showed a total of $1,500,000; now it is nearly $7,000,000.

The following table gives the increase of resources of the county for one decade:—

	1872	1882
Acres of land inclosed	26,811	47,210
Acres of land cultivated	9,652	32,380
Acres of wheat	2,244	25,220
Bushels of wheat	38,433	361,000
Acres of barley	2,363	4,960
Bushels of barley	6,146	99,200
Acres of corn	1,039	1,842
Bushels of corn	19,830	52,600
Acres of hay	2,952	12,840
Tons of hay	3,801	18,320
Acres of cotton	40	92
Pounds of cotton	20,000	27,600
Pounds of wool	1,000,000	2,293,740
Number of sheep	127,020	382,290
Number of grist mills	3	7
Barrels of flour made	8,000	12,000
Bushels of corn ground	2,000	5,800
Number of saw mills	5	3
Feet of lumber sawed	4,000,000	——
Shingles	40,000	400,000
Number of quartz mills	15	8
Improvements	$238,321	$312,804
Personal property	$1,328,637	$1,599,838
Railroad (assessed by State Board)	———	$1,237,215
Total valuation	$2,958,676	$5,431,714

The total acreage assessed in the county for 1882 is 1,117,421 acres, at an average of $1.66 per acre. Irrigating ditches at $74,681, and mining claims at $5,410. The following is the number of stock and valuation for 1882:—

		Valued at
Number of cattle (stock)	29,880	$298,800
“ calves	3,448	10,635
“ cows (thoroughbred)	122	3,800
“ “ (graded)	1,599	31,980
“ oxen	50	2,240
Total cattle of all kinds	35,099	$347,455
Number of horses (thoroughbred)	17	$ 5,100
“ “ (graded)	3,146	80,135
“ “ (American)	396	25,070
“ “ (colts)	1,223	18,893
“ Jacks and Jennies	131	2,356
“ mules	488	4,443
Total number	5,401	$135,997
Number of goats (common)	912	$912

The assessment roll for 1883 foots up $6,790,991, by putting the railroad taxes at the same rate as last year, and there is the assessment of the thirty-six miles of the branch railroad of the South Pacific extending from Mojave to the county line on the east, to be added, which has not yet been furnished by the State Board of Equalization.

INCREASE IN POPULATION FOR TEN YEARS.

By the general census of 1870 the population was 2,925, and that of 1880 gave a population of 5,601, an increase in ten years of 2,676, or in other words the county doubled its population in ten years. It is, however, very doubtful about the next ten years showing so great an increase.

THE WHEAT CROP.

The wheat grown in the Kern Valley is of the most superior quality, and it yields abundantly. The ears are very long and full, and the berry is the fattest and plumpest that we have ever seen. Fifty bushels to the acre is no uncommon return, while in many instances the yield is in excess of that. Wheat flourishes best, too, on our alkali soils, that kind of soil appearing to furnish the peculiar salts that wheat requires, in an eminent degree.

The total quantity of wheat produced in Kern Valley in 1882 was probably about 1,500 tons, of which all but 50 tons were manufactured in flour at the Bakersfield Mills. The millers say that irrigated wheat has a thicker skin, and yields more bran than that produced by dry farms, and that the flour has a slightly darker color. Irrigation also toughens the straw and makes it harder to thresh.

The cost of preparing land, sowing, irrigating, and harvesting a crop of wheat is estimated at from $5.75 to $8.25 per acre. The average yield of these cereals on the Belle View Ranch in 1878 was: Wheat, 27½ bushels; barley, 32 bushels per acre—averaged over an area of about two thousand acres. In exceptionally favorable spots 90 bushels of barley and 50 bushels of wheat per acre have been produced.

INDIAN CORN.

This is another plant the growth of which can no where be surpassed and scarcely equalled on the continent. The height of the stalk, the number and size of the ears, the quality and character of the grain, all justify this assumption. The same may be said of barley, wheat, and the small grains. Comparatively little attention has been given heretofore to the production of small grains, but it is gratifying to observe a growing disposition to varied culture instead of cultivating one or two staples to the neglect and exclusion of others equally adapted. The usual plan is planting barley and harvesting it in May or June, and then planting the same ground to corn, which strongly illustrates the fecundity and strength of soil, and the beneficence of climate. The cost of a crop of corn in Kern County averages as follows:—

Irrigation prior to planting, per acre	$ .50
Plowing, harrowing, and planting, per acre	2.35
Cultivating, per acre	.25
Suckering and hoeing, per acre	.60
Irrigation, per acre	.50
Husking and hauling to granary, per acre	2.00
Shelling (for yield of 30 bushels), per acre	2.00
Total	$8.20

Average yield of shelled corn, 30 to 40 bushels per acre. The cost of cleaning the land of corn-stalks for another crop is 30 to 50 cents per acre.

Hops are found to flourish in a remarkable degree, and yield most bountifully. The product in size and quality is said to be unexcelled. The hop is very large, hangs in massive clusters, and carries a much larger proportion of lupulin—the active principle of the hop—than usual. There are especial advantages and inducements to engage in its culture here, owing to the dryness and heat of the climate. In most places it is necessary in curing hops to dry them in ovens and kilns built for the purpose, but for the reasons stated above it would not be necessary to employ that process here. There is no moisture in the air at night-time, and the hop can be cured here by the natural process of sun drying. The expense of kiln drying would thus be saved, while the quality of the hop would not be impaired, as it frequently is by the kiln-drying process.

TREES, FRUITS, BERRIES.

It will be well understood that all kinds of wood growth—trees, shrubs and vines of every variety suited to the conditions of the climate—reach an extraordinary development in an incredibly short time.

A view from the dome of the Court House, which overlooks the whole valley, shows their green outline in long narrow strips extending toward the west, subdividing the valley into distinct tracts. These strips mark the line of the water-courses, many of them, however, showing where the water formerly ran, but has now sought other channels. The numerous great ditches that have been carried over the county will soon, also, be lined with trees along their margins. The trees are valuable for fuel, and the growth is so rapid that the demands for such purposes will, we believe, always be equalled by the supply.

They are valuable for fence posts, and are universally employed for that purpose. The posts cut and set in the spring will immediately send out roots and establish themselves as trees. All that is required is to dig a trench along the line of fence to conduct the water and irrigate them freely the first year. In low moist land it is not necessary even to do this. At the end of the second year there is a splendid row of trees.

It is usual here to plant in such a manner that the cottonwood and willow shall alternate. If properly cared for, and all the care required is to see that they do not suffer for water the first year, they will obtain a wonderful growth, branching out at the top in bushy profusion ten or twelve feet for a single year's growth. The cuttings seem to do better and make a more rapid and vigorous development than the same variety if transplanted with the roots. Nearly all the fence posts in the valley are of this character, and the boundaries of the different ranches are marked by lines of thrifty trees. They are thus not only highly useful, but ornamental, and in a comparatively denuded country are very grateful to the eye.

There are hundreds, probably thousands of acres in the valley that are overgrown with the switch willow, such as is used in the manufacture of baskets and every variety of willow-ware, that ought to be employed for this purpose. Most of our willow-ware comes from Holland. The willow is grown there on the banks of the dykes that dispute the possession of the low lands with the sea. It is carefully cultivated there, and a willow plantation is considered very valuable. The Hollanders are very skillful and dextrous in the use of the willow, some of their work being exquisitely delicate and fanciful. Kern can rival Holland in the production of the material—all that is needed is the energy, enterprise and skill to manufacture it.

THE EUCALYPTUS TREE.

Several varieties of the blue gum trees have been extensively planted during the last few years, and in their growth and thriftiness they have exceeded the highest anticipations. The rapid and luxuriant growth, the beauty of the tree, the fact that it is an evergreen, no less than the marvelous sanitary influence attributed to it, have made it a favorite. It emits a strong camphorous odor, and its influence in neutralizing the effects of malaria in the atmosphere seems to be a well attested and generally recognized fact. The effect of tree-growth upon climate, the manner in which it affects the rain-fall and the temperature, are questions to which scientific inquiry has long been directed, and that it does perform an important part in the modification of the temperature, the conditions of moisture and the attractions of clouds is a well-known and recognized fact.

GRAPES, SMALL FRUIT, BERRIES.

All small fruits are luxuriant in their growth, and abundant in their yield. Horticulture, however, is not an art that is as well understood here as in some older places, and much depends upon the choice of soil, the exposure to, or protection from, sun or wind, moisture, etc. A good deal of harm has no doubt been done by too copious irrigation and injudicious application. Those who have given the matter some attention, and whose experience entitles their opinion to some weight, advise the selection of the highest and dryest lands, with a soil in which there is a slight admixture of sand. Irrigation should be sufficient, but not too frequent. Trees under this treatment grow rapidly, mature early, and produce fruit superior in flavor and abundant in quantity. The same may be said of apples, pears, peaches, plums, apricots, cherries, and so on through the entire range of fruits usually found in the temperate girdle.

Strawberries are almost perennial in their productiveness; the yield of blackberries is simply enormous; in the warm belt before alluded to, it is said that the tomato changes its character as an annual, and becomes perennial, developing into a shrub.

Tobacco, rice, and ramie are also found to be suitable products for this locality. Tobacco flourishes in the greatest luxuriance and is destined to become an important product.

Experiments in ramie culture also have been attended with the most gratifying results. The discovery and operation of some mechanical contrivance or invention for denuding the stalk and dressing the fiber, would no doubt stimulate the production of this most valuable of all fibrous plants. The great strength, flexibility, firmness, and luster of the fiber render it invaluable. The Japanese employ it extensively mixed with silk, which it fairly rivals in appearance and delicacy, while it imparts a strength and durability to the fabric heretofore unknown. They prepare it by hand process, and in the absence of machinery the supply must always remain limited. As there are comparatively few places in which the plant flourishes, the advantage of being one of them is at once apparent.

In rice and sugar-cane, but little has been done, but it is agreed by all that the country seems to be well adapted to their profitable cure, and in the absence of any known reason to the contrary it is so claimed.

The value of these various crops is dependent upon the ruling market rates of produce elsewhere. The local market has always been good, and the products of agriculture have either been converted into beef, mutton, and pork, or have been consumed at home.

Of flowering plants, the most delicate exotics known in eastern hot-houses are seen in the open air. The growth of trees, vines, and ornamental shrubbery is extremely rapid.

CULTIVATION OF COTTON.

In 1871 an association was formed for the purpose of planting and manufacturing cotton on the Kern River bottoms. The experiment of planting, which had before been tried on a very small scale, was again tried on a scale of more magnitude. A tract of land near Bakersfield was cleared and put in. But there was much difficulty in obtaining men of practical knowledge and experience in the culture of cotton, and consequently the project suffered greatly from bad management. The planting was begun in April and through a series of blunders continued till July. One of the great advantages claimed for this section is the length of the season. We have no rains or frosts as a general thing, from April till November.

That which was planted in the early part of the season matured finely and yielded a crop of over 400 pounds of ginned cotton to the acre. To be added to the difficulties experienced on this occasion was that of irrigation. Those who had charge of the planting had no knowledge whatever, either practical or theoretical, of a proper system of irrigation. They had never raised cotton by irrigation, and knew absolutely nothing of the manner of application of water by such a process to the production of cotton. The result, however, plainly demonstrated if cotton can be produced under such adverse circumstances, that in the hands of intelligent culturists and persons who understand such culture by means of irrigation, when the peculiarities of the climate and soil were better understood, it would be, perhaps, the most remunerative and profitable enterprise that could be engaged in.

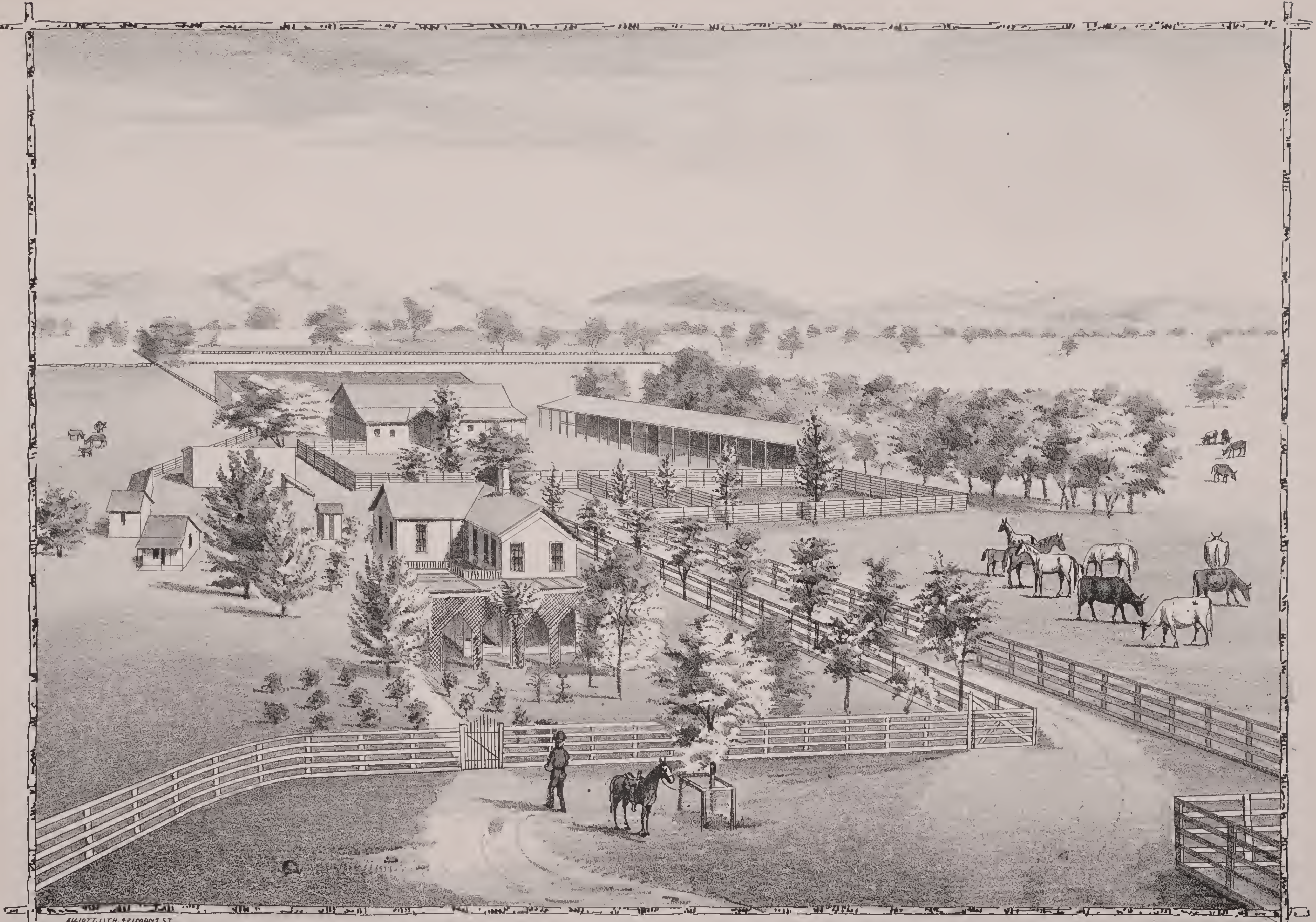
The extent of cotton cultivation, Belle View Ranch, was 130 acres in 1880. The cotton was of a superior quality. A gin of the latest and most improved pattern is used. Picking continues as long as 100 pounds per day is averaged by each hand.

CULTURE OF ALFALFA.

The experiments made in Kern County show that the raising of alfalfa is a much better business than wheat raising. The large farmers there appear to be pretty well agreed that it is advisable to raise only so much grain as will be needed for the home market. It is not desirable to raise grain for shipment, except to the neighboring mining districts. In short, the policy of farming which largely obtains in Kern County is one which makes the farmer independent in a great measure of the railroad company. Grain for the local market requires no railroad transportation. Cattle and sheep feed on alfalfa and are driven to market, the wool only going by railroad.

Alfalfa is the great forage plant of the valley. Here all the peculiar conditions it requires are found in perfection. Accordingly it is cultivated to a greater extent than elsewhere, and merits the distinction applied to it of the great alfalfa region of the State. It does best on alluvial soil, penetrable by the roots to the water level, which should not be nearer than seven or ten feet of the surface, and requires a hot, dry climate. The simple truth in regard to its capabilities is sufficient to excite the liveliest interest in the mind of the farmer, grazier, or any one in search of sources of profit or wealth. It will make four crops of good hay between the months of May and October. All domestic animals, including poultry, are fond of and thrive and fatten upon it. Bees love the blossoms. Fields of it impart pleasant odors, a cooling influence, and have a healthy effect on the atmosphere. It has been known to yield from ten to sixteen tons of hay to the acre, and furnishes pasturage several months of the year additional.

ALFALFA, LUCERNE (*medicago saliva*).—This plant was cultivated in Greece 500 years before Christ, having been brought from Media. Later it was extensively cultivated by the Romans, and through them introduced into France. By whom it was introduced into Chile is not now known positively, but its cultivation there at present is very extensive; and in the pampas of Buenos Ayres it grows wild in the utmost luxuriance. From Chile it was brought to California, where it has proved itself the most valuable of all forage plants. In Europe it is known as lucerne, and on the Pacific Coast as alfalfa. There is no doubt that originally they were the same, but the modifications of climate have so affected what we know or style alfalfa, that it may be regarded as a distinct variety. It sends down its tap-roots in mellow soils to great depths, having been found in sandy soils fifteen feet in length—far below the reach of drought. The flowers are a pale blue, violet or purple. Its seed is larger than red clover, and more of it is required to the acre. When the seed is ripe it is yellow, plump, and heavy; if unripe, it is small, and of a greenish hue; and if blighted or blasted, it is a dark brown. When properly managed, the number of cattle that can be kept in good condition on an acre of alfalfa, during the whole season, almost exceeds belief.



ELLIOTT. LITH. 421 MONT. ST.

HOME RANCH OF J. C. CROCKER, 7 MILES SOUTH OF BAKERSFIED, KERN CO. CAL.

WONDERFUL GROWTH OF ALFALFA.

Ten years ago there were not probably two acres of alfalfa in the county, and to-day there are probably not less than 10,000 acres. The stories told of its productiveness to the sober New England farmer who thinks himself fortunate to get one scanty crop of timothy from his exhausted acres, seem but the irresponsible utterances of the lunatic. When he is told that alfalfa, if properly cultivated, must be cut every twenty-one days or else it will spoil, he smiles and exclaims in admiration; but his admiration is not at the alfalfa feat, but at that of the man who can lie like that. When he is told that five to seven crops of hay to the season is the rule, that a crop is from a ton and a half an acre to two tons, and that it may then be pastured during the winter months by cattle or sheep at the rate of two or three of the former and ten or fifteen of the latter to the acre, he merely speculates as to which is the greater fool, the man who tells this expecting to be believed, or the poor dupe who yields a credulous ear. And yet these are the simple facts, that can be corroborated by hundreds from their own experience.

The culture of alfalfa has undoubtedly been carried on to a greater extent here than anywhere else in the State. Every settler on a quarter or an eight of a section of Government land immediately applied himself to the planting of a patch of alfalfa, large or small according to his ability. The reason lay in the fact that it was the most profitable crop that he could plant. Once planted and attended to through one season it required little attention ever afterward, except to cut it at proper times. There was no outlay each year for plowing and planting. Each succeeding year it grew more luxuriantly and yielded more abundantly as its roots penetrated the rich alluvium and reached the natural moisture. After that it requires no irrigation and this is usually achieved the first year, if it is planted upon low lands.

The following figures show the average cost per acre of producing alfalfa on the Belle View Ranch:—

Preparing land, plowing, harrowing, cross-harrowing, and pulverizing soil	$3.00
Seed, 20 lbs. per acre, @ 10 cts. per lb	2.00
Sowing	.20
Labor of three irrigations, first year	.50
Total	$5.70

Average yield, first year, in three cuttings, four tons; second year, six tons; subsequent years, ten to twelve tons. Value, $5.00 @ $10.00 per ton.

In 1875, a tract was sown with alfalfa and wheat together, the wheat yielding 40 bushels per acre, and the alfalfa three tons in two cuttings. But one irrigation was required to produce this result, and the case is not an exceptional one.

An acre of alfalfa is always considered capable of supporting five head of horses or cattle, or twenty head of sheep, through the growing season—nine or ten months of the year.

Mines of Kern County.

GOLD was discovered as early as 1853 in the tributaries of the Kern River, many of which contain rich placers. These were soon worked out, and attention was then directed to quartz mining, and many valuable leads have been found and worked with great profit for many years. The whole mountain range, ribbing the county on the east and south, is rich in mineral.

At the time of discovery they were distant from any base of supplies; the country was unsettled; mining machinery and everything else had to be brought a long distance, over bad roads, at the cost of much labor, time, and expense; mining was but little understood, and the county failed to attract capital or a population of skilled and energetic miners; but little was done to develop the mines, and that badly done, mining fell into disrepute, the better class of miners left the county to tempt fortune in other localities, and those who remained lapsed into apathy and indifference, and the many rich ledges known to exist in the county remain yet almost entirely unprospected.

In the southern inclosure of the great valley in what are called the San Emidio Mountains, where the Sierra Nevada and Coast Range meet and merge into the Sierra Madre, is a region of which comparatively little is known other than that it is rich in various minerals. Rich gold placers had been found and worked in Lockwood Valley on the Piru Creek and its tributaries, the scarcity of sufficient water for washing purposes during the greater portion of the year being the only drawback.

Valuable deposits of tin, antimony, silver-bearing galena and gold-bearing quartz have been found. Boushay & Co., of Los Angeles, erected works and successfully worked the antimony mines.

A RICH OLD MINE.

A well authenticated tradition exists that a very valuable silver mine was found in these mountains and worked by the Indians under direction of the Mexican padres long before the American occupation of the country. The crafty padres, however, kept the location a profound secret, which it remains to this day, notwithstanding much search has been expended in the endeavor to recover the lost mine. The valuable church plate of the mission of San Luis Obispo was brought from this place. The remains of the old furnaces employed for reducing the ore have been found, but all efforts to discover the mines have proven futile. The surface of this part of the country is exceedingly rough, lofty and inexcessible mountains and precipitous and impenetrable chasms impeding the progress of the explorer at every turn. Still, enough is known about it to warrant the assertion that it would richly repay the adventurous prospector.

KERNVILLE MINES.

The following article printed in 1875 will show how mining operations were at that date. It says “the mine at Kernville, owned by Senator Jones, is located near the little town of Kernville, in Kern County, and was first opened some seven or eight years ago. It underwent a variety of fluctuations, until it fell entirely into the hands of its present owner. When Mr. Jones purchased all the interests outstanding—about a year since—he at once commenced to unfold its treasures. He sank a deep shaft, ran winzes and stopes in various directions, made convenient levels and crosscuts at various points, and prospected the entire ledge for two miles and a half, and found it rich in gold at every point. It has an average breadth of 80 feet, and the main shaft has been sunk 400 feet—all the way in ore. The ledge varies in value from $25.00 to $300 per ton. It is now estimated by the men in the mine that there is ore enough in sight to furnish work for the stamps now in operation for ten years. The mill and hoisting-works are pronounced the best in California. An eighty-stamp mill, with every improvement known to modern mining science, is kept in constant operation—never ceasing either night or day—and it is turning out a vast amount of bullion. Of course it is only known to the proprietor and his chief operators how much the yield is; but if we strike an average of the ore, and allow one ton a day to each stamp, it would give a gross yield from this mine, with the present works, of $4,500,000."

DELANO GOLD MINES.

This is a rich mining district, and only needs capital to develop it. The first mine worked here was discovered as follows: Some twelve years ago, a man by the name of Johnson was riding along, when he suddenly came across a beautiful specimen of dark blue ore—the characteristic rock which now forms the ledge—near a squirrel hole, which led him to believe that there must be a lead somewhere near, and he ran his hand in the hole, when, to his surprise he brought forth another piece.

From that time up, the mine has been worked now and then; but the men being poor, as a rule, and the water plentiful, it has been abandoned several times.

Kern County presents to-day as rich, sure, and safe a field for quartz mining as any other in either this State or Nevada. The climate here is exceptionally fine and healthful; the mines are of easy access, and only a short distance from the largest and most fertile agricultural valley in the State, and unusually well supplied with wood, water-power, and every facility for successful mining operations; the ledges are numerous, uniformly rich and easily worked, and it is a matter of amazement that they have remained so long unworked and without notoriety.

PETROLEUM DEPOSITS.

There is every indication of the existence of immense reservoirs of petroleum in the western part of Kern County. The bituminous shales and sandstone formation are identical with those of the oil regions of Pennsylvania and Virginia, and considerable oil exudes from the surface in hundreds of places. At one point petroleum had been collected from springs to the extent of several thousand barrels, of a heavier and less volatile character than the hydro-carbons of the East. Asphaltum also covers thousands of acres of land.

In the extreme southwestern corner of the county are the Buena Vista Petroleum Works. They were erected some years ago by a Mariposa company, but for some reason the enterprise was suspended, and still remains so. Great quantities of asphaltum and oil are constantly oozing from the earth and flowing away; the oil being very volatile soon evaporates, leaving the dry, hard residuum on the ground. At several other places in the valley and the foot-hills there are oil springs of the same character. One has been discovered in the bed of Kern River a few miles above Bakersfield.

Asphaltum deposits occupy an extent of country nearly forty miles in length, extending from the eastern corner of Santa Barbara County to Buena Vista Lake on the north. The most extensive of the petroleum deposits lies to the southeast of this lake, a distance of about eighteen miles. Here is a spring, covering nearly an acre, of thick, heavy oil, termed maltha. The surface is constantly agitated by the escape of gas. Works were erected here in 1864, for the purpose of refining oil for the San Francisco market. After manufacturing some thousands of gallons of oil of good quality, the work was abandoned, as the cost of sending it to market enhanced its value to such a degree as to render successful competition with the article shipped from the Eastern States impossible.

The first oil claim located was in 1864, by John Hamilton, of Tulare County. Illuminating and lubricating oil of good quality was manufactured, but transportation to market was so costly it was abandoned. The place was left in charge of Stephen Bond, who kept a small store. He was murdered, and the place was neglected until the Buena Vista Company formed as stated above.

The oil spring is situated in the hills that form Antelope Valley. The oil is about the color of tar. It has been running for ages, and the ground for thirty acres is covered at a depth of from two to thirty feet of asphaltum. The oil gathers together, and runs down in a little stream which appears like water at a distance, and birds alighting are held fast in the treacherous asphaltum. Hundreds of birds perish annually. Hares and rabbits are also stuck fast in the thick oil. The bones of one grizzly have been found imbedded.

In 1877 several oil companies were formed. One of these was the Visalia Oil and Petroleum Company, which filed articles of incorporation; capital stock, $500,000. Divided in 5,000 shares of $100 each. Directors, J. J. Mack, Spier Jackson, D. B. James, R. H. Stevens, F. Bacon. President, F. Bacon; Treasurer, J. W. Crowley; Secretary, J. J. Mack. They commenced boring, and evidently meant business. An assessment of twenty cents per share was levied.

Towns and Villages of Kern.

HAVILAH, THE OLD COUNTY SEAT.

THIS old town is situated forty-five miles northeast of Bakersfield, and was once the most important town in the county and the county seat. It is situated on Clear Creek, a small stream tributary to Kern River, which it enters from the south. Its position is inaccessible, it lying in a cleft or defile of the mountains. Its resources are entirely of a mineral character, and it is the center of a large and richly paying mining region. Havilah is named from a place mentioned in Genesis, where a land of gold is for the first time alluded to.

It was in the spring of the year 1864 that Havilah sprang into existence. A number of leads were discovered in the immediate vicinity, and an intense excitement immediately blazed out, of which the Havilah Mines were the focus. Many mills were erected, and numerous leads were worked with varying success. Times were good; money was abundant. An ephemeral prosperity lingered with Havilah, but the excitement soon subsided and a general decadence of the mining interests took place. It was difficult and expensive to get machinery on the ground, and as soon as the croppings were worked out and it became necessary to go deeper, the expenses of excavation and reduction would no longer tally with the returns.

The town, at its height of prosperity, consisted of two stores, two hotels, two saloons, a butcher shop, blacksmith shop, shoemaker shop, brewery, livery stable, express, and post-office.

The Havilah weekly *Courier* was printed here in 1857. In January, 1872, the Havilah *Miner* was issued and edited by DeWitt C. Lawrence. The material and staff of this journal moved to Bakersfield in June, 1874, and established itself over Mix' drug store.

KERNVILLE lies sixty miles northeast of Bakersfield. It is quite a thriving place. Near it are a dozen or more important quartz ledges, on many of which extensive mills have been in operation for several years, the yield being handsome. It is now, and has been for a number of years, one of the most flourishing mining towns in the State. The Sumner Mine is the principal, in fact, the only mine that sustained this populous settlement. It is owned by Senator John P. Jones, the bonanza millionaire. The lead was discovered in 1860, but was never properly worked till it fell into the hands of the present owner. Many other locations were made originally, but these were bought up from time to time till the Sumner Mining Company owned the entire lead for some four miles—as far as it can be traced—and has a U. S. patent for it. It will be seen then that the supply of ore is practically inexhaustible.

J. W. Sumner, of Kernville, was the discoverer of the mine. He is a pioneer of Kern mines. The Sumner Mine is the most important mining interest ever operated in the county. The mines of this section are described more accurately elsewhere. Eight years ago it was described as follows: "About a mile from Kernville, on the river, stands the wonder of the mining world, and that is the new eighty-stamp mill, put up by E. Burke. It is a grand effort of mechanical skill. It is running to its full capacity, night and day. Some improvement on the primitive crusher. To think of eighty stamps and all the numerous pans. The mine is an immense fissure in the earth that yields rich rock, and an everlasting supply, and will continue to do so for generations to come. It is solely through the efforts of Mr. Burke that this monster mill, that is undoubtedly the best in the world, and this wonderful mine is being developed. It is worked by about 150 men in eight-hour shifts, so that the work goes on without cessation. The populous and thriving town of Kernville has grown up, and is almost entirely dependent upon the operation of this mine."

The town of Kernville is situated on a bench of the north fork of Kern River. There are some pretty neat little residences on the outskirts, and the town has the compact, business-like appearance of a populous and thriving mining town. There are some five or six stores, several of them carrying large stocks and doing an extensive general business, three hotels, four saloons, a fine brewery, two livery stables, a wagon-makihg shop, two blacksmith shops, a barber shop, two butcher shops, a shoemaker shop, express and post-offices.

ALVIN FAY is an attorney-at-law, prepared to attend to any business intrusted to his care, in the mines or elsewhere. He is also Notary Public.

Other branches of business. not here enumerated, are also represented. At the mines there are miner's boarding-houses and saloons that may properly be classed as belonging to Kernville.

VIEWS OF KERNVILLE.

On another page will be found three views of Kernville's business places and residences.

THE KERNVILLE HOUSE, the leading hotel of the place, is kept by N. P. Peterson. Here travelers find ample accommodations at reasonable rates. He is familiar with the surrounding country and can give full particulars of the neighborhood, and of the location of mines to strangers.

THE KERNVILLE BREWERY forms another of the illustrations of this town. In front on the street is the saloon, and in the rear is a neat brewery building. This is the property of William Cook, who has resided in Kernville for a long time.

R. H. EVANS, one of the Supervisors of the county, resides here in a neat cottage residence, which makes one of our best views. Immediately in the rear of his residence will be seen the tops of mountains that surround the town.

R. H. Evans was born in the town of Berkley, Massachusetts. He attended the public schools until thirteen years of age, then went to the town of Taunton, to learn the trade of calico printing. After working about six months, he found it impossible to submit to the abuse of his English boss, who had a great contempt for all things American, and especially for American boys.

He left the print-works and returned home, and after going one year to a private school, taught by Rev. Thomas Andros, of Berkley, returned to Taunton, and learned the trade of machinist and engineer, and continued to follow the business until 1849, when the great gold excitement took so many from their homes to the Pacific Coast.

He sailed from Bristol, Rhode Island, February 19, 1849, in the bark *Anne,* Capt. William Cobb; came round Cape Horn, stopping at Pernambuco three days, and a week at Valparaiso, and arriving in San Francisco August 29, 1849.

After a few of those exciting days of early times, he started for the southern mines by way of Stockton, and did his first gold digging at Hawkins' Bar, on the Tuolumne River, September 12th. Made about two ounces per day until the last of November. The rainy season had set in and the river had overflowed its banks, and he did not know at that date that there was any gold to be found only along the river-courses. So he sold out claims and provisions, of which he had a good supply on hand, at eighty cents a pound, and started for San Francisco to spend the winter.

On the 1st of March he started for the Yuba, with a small stock of merchandise; was ten days going to Marysville, and four or five days more found him located on Long Bar on the Yuba River, in company with H. W. Fales, in the merchandise business. A few months latter he bought out Mr. Fales, he going to Downeyville. Mr. Evans remained on Long and Parks Bar for a number of years, and made money store-keeping and river mining. Later he lost considerablein quartz mining at Brown's Valley. In 1860 he went to Nevada, and was engaged for two years milling silver ores on the Carson River, at the Merrimac Mill.

The next two years he spent in Aurora, Esmeralda County, as Superintendent of the Wide West and Real Delmonte Mining Companies.

While in Aurora, in 1864, he was employed by a mining company, Wm. R. Garrison, President, to go to Chihuahua, Mexico, as Superintendent of the Refugio Mining Company.

He returned to San Francisco in 1866; joined the society of California pioneers; in January, 1867, came to Kern County. The first three years was engaged in milling and mining at the Kern River and Big Blue Mines. The last ten years have been spent in the lumber business.

At the last general election he was elected Supervisor for District No. 1, Kern County, on an independent ticket.

He married, June 27, 1881, Miss Sarah Jacques, native of Wisconsin.

GLENNVILLE was at one time a nice little village with two stores, a hotel, saloon, blacksmith shop and school house. Near this place are some good sulphur springs, and the climate is very good, as it never gets over ninety degrees here and the nights are cool. It is located in Linn's Valley.

MOJAVE, 370 miles south from San Francisco, is in the great Mojave Desert, on the eastern side of the mountains. Stages leave this point for Independence, Inyo County, 150 miles distant.

CALIENTE was a town of considerable importance during the time of constructing the railroad, but its glory has faded and its houses have mostly been removed elsewhere. Stages leave this point for Havilah, the former county seat, Kernville and other important towns in the mountains.

SUMNER, the railroad station, is situated about a mile east of Bakersfield. The railroad track runs through the northern part of Bakersfield, and to many it appears strange that the depot should not be located at that point instead of where it is.

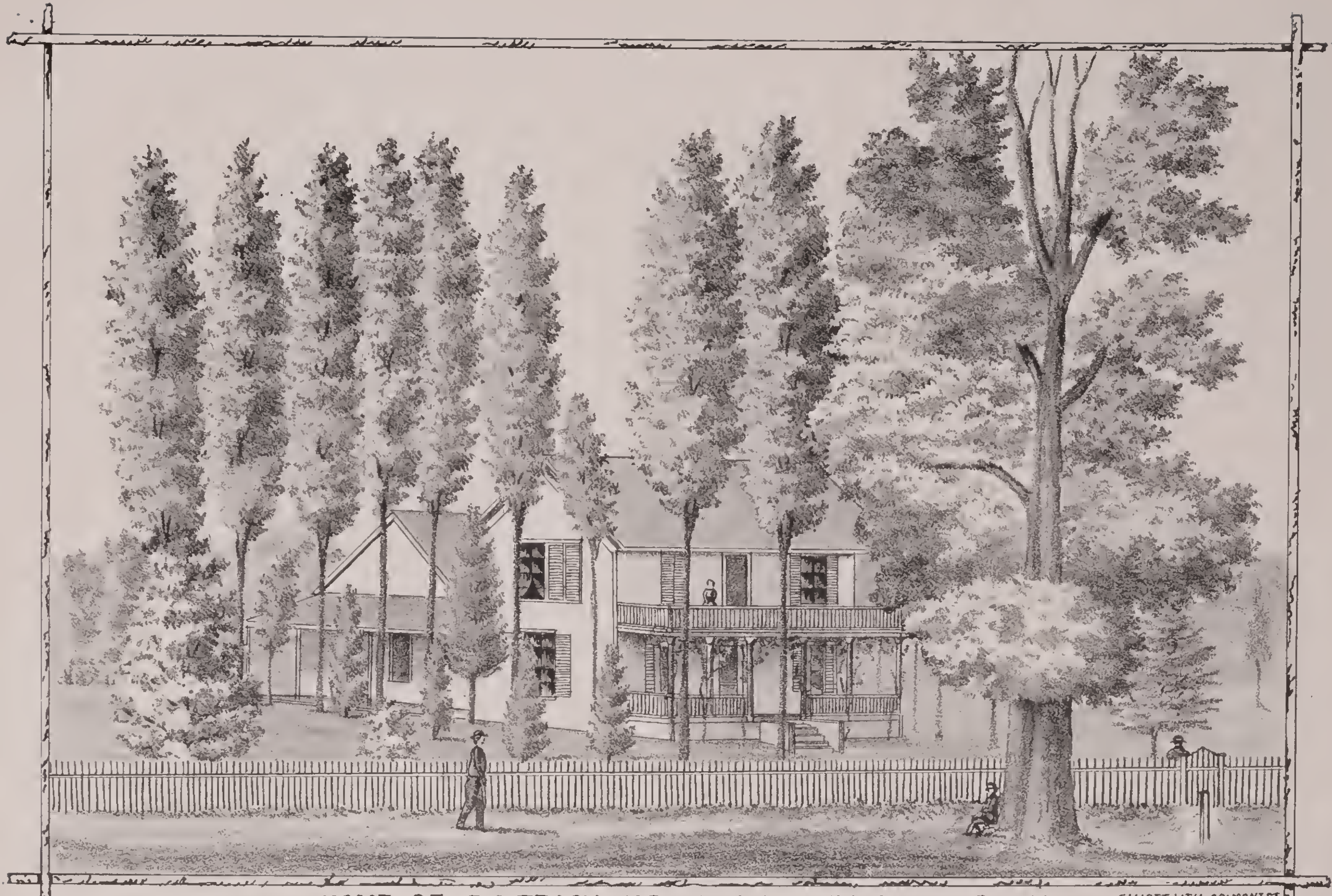
An omnibus plies at all hours of the day and night between the two points, affording ample communication for passengers, while freight trucks convey freight. The interests of the two places are so thoroughly identical and so intimately connected that it is impossible to build one up at the expense of the other.

Sumner was laid out by the railroad company in November, 1874. The village lots are all 25x150 feet.

The business part of Sumner now consists of two hotels, two restaurants, six saloons, three stores, a barber shop, a livery and feed stable and blacksmith shop, post, express and telegraph offices. Several neat residences stand north of the track, and some more south and west. The Mexican population of the valley seem to have chosen the place as a rendezvous, and constitute a large element. It had a newspaper office about 1876, which remained there a short time only.

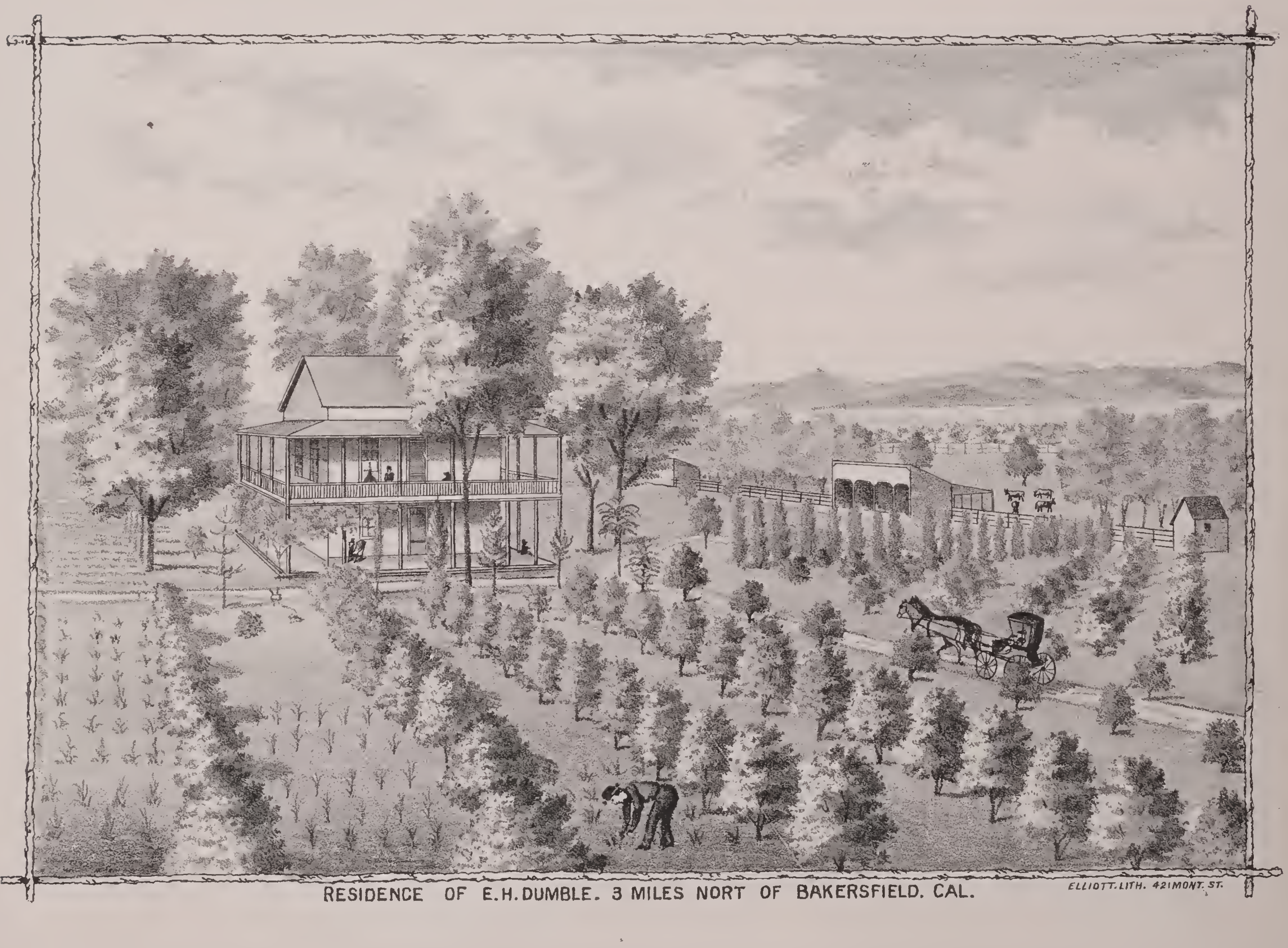
CHITTENDEN BROS. are the principal merchants. The firm consists of J. E. Chittenden, who was in business first in 1875, and was joined in 1879 by W. A. Chittenden. They are forwarding and commission merchants, hay and grain is bought and sold, shipments of stock and wool are solicited, stock in transit are fed, watered and reloaded with care.

TEHACHEPI is situated in the western part of Tehachepi Valley, and contains about three hundred inhabitants. It is known far and wide for the celebrated "loop" in the railroad and lately for the terrible accident on the railroad by which the passenger train escaped and ran down the grade toward Sumner. Part of the cars were overturned, wrecked, and burned, and some twenty persons killed.



HOME OF F.A.TRACY. 18TH. & M STS. BAKERSFIELD. CAL.

ELLIOTT. LITH. 421 MONT. ST.



RESIDENCE OF E.H.DUMBLE. 3 MILES NORT OF BAKERSFIELD. CAL.

ELLIOTT. LITH. 421 MONT. ST.

The "Loop" is a wonderful piece of engineering. The road runs into the ground under the Tehachepi Mountains and after groping along in the dark a little while makes a turn and runs over itself. This forms "The Loop" which is about a mile in circumference. The road after coming out of a tunnel runs around a mountain, and then after a few little eccentricities goes on toward Los Angeles without any further foolishness.

On the line from Caliente to Summit City there are seventeen tunnels, with innumerable embankments. This has certainly been a great work, and the only wonder to the beholder is that it was not abandoned before it was commenced.

"The Loop" is the only railroad engineering work of this nature in the world where the road is made to "cross itself." It is located midway between Keene and Girard, 340 miles from San Francisco. Length of "Loop" 3,795 feet. Elevations: Lower—at Tunnel 9—2,956 feet; Upper—at grade over Tunnel 9—3,034 feet. Difference in elevation 78 feet.

From Antelope Mountain the observer has a fine view of Buena Vista and Kern Lakes, with the connecting waters, Kern River in the distance, with timber on either side; while beyond is the valley, and still beyond the Coast Range is plainly discernible. Below lies the village of the valley, and at the east end Tehachepi Lake, a beautiful sheet of water when viewed from this place. In the distance is Mount Whitney and surrounding peaks.

Tehachepi has a flouring-mill which uses the grain raised in the adjoining valleys. The valleys of this section are Tehachepi, Cummings, Bears and Brights, all of the land being owned, and most of it fenced. Farming is carried on quite extensively, but the country seems best adapted to grazing.

The marble produced from the ledges has been pronounced to be first-class.

Coal was found near the railroad line, and about ten miles from Tehachepi summit. Two leads were at one time in full operation, one being run by John Funk and another by Anson Cross. The parties claimed that they had found coal.

REMAINS OF AZTEC CIVILIZATION.

In the vicinity of Tehachepi there are numerous and varied remains and evidences of ancient Aztec civilization. There are, on the sides of the hills, running in different directions, well defined aqueducts and ditches. The soil is a firm cement, which does not wash away. Immediately in these ditches there are giant oak trees growing, as large and evidently as old as those of the surrounding forests, showing that the ditches must have been constructed hundreds and perhaps thousands of years ago.

One of these ditches leads to a silver-bearing ledge, on which shafts had been sunk, and from the bottom of which shafts drifts ran in different directions, showing that the aborigines had mined for the precious minerals in the days of old. This old mine was re-discovered by the Narbeau Brothers, known in the vicinity, who worked for a considerable time in and from the self-same shafts first sunk by the ancient inhabitants of the continent. The lode did not prove as rich as it was hoped it would, and the Narbeau Brothers finally abandoned it.

In running a water ditch through this region, Mr. P. D. Green once had occasion to remove a venerable oak tree. In taking away the roots, he observed that immediately under where the tree had stood, the soil was different from the hard cement surrounding—that it partook of the nature of vegetable mould and debris, being very soft and easily penetrated. Following down, an ancient shaft was easily traced, and on removing the debris was most clearly defined, the walls remaining perpendicular, intact and solid. At the bottom of this shaft the skeleton of a man was found, immediately underneath, and covered up by a pile of charcoal and ashes, remaining from some ancient fire. The tree growing over this shaft was evidently hundreds of years old, showing that the excavation had been made long centuries before the advent of the Spaniards.

BAKERSFIELD, the chief town and county seat, is situated a short distance below where the Kern River emerges from the foot-hills. To the south and west for many miles the beautiful garden of the valley stretches. It is laid out in blocks, with streets intersecting at right angles. Ditches run along the streets, supplying water for irrigation and other purposes. Many use the river water from the ditches, after filtering, and it is considered more wholesome than the surface water found in the wells. A movement is now in progress to supply the village from water-works.

The streets are lined with shade-trees; cottonwood and willow, and many eucalypti and locust may be seen. Some neat residences and beautiful gardens may be observed in the western suburbs, where roses and other flowers bloom perennially.

The Methodists have a neat church building in this portion of the town. A commodious town hall, with the upper story devoted to lodge-rooms for the Masons and Odd Fellows, stands on Chester Avenue. One block south stands the county Court House, erected at a cost of about $35,000; a magnificent pile, commanding a superb view of the surrounding country from the stately observatory that surmounts it.

Opposite, and a block east, the school house is a not inappropriate companion building, in point of appearance, to its scarcely more imposing neighbor, the Court House. The school house was built at a cost of $6,000, and is at once commodious and ornamental—a source of honest pride to the community. It is a fine substantial building, and a credit to any town. The block on which it is situated is surrounded by a neat picket fence.

The business part of the town consists of eight general merchandise stores, one furniture store, one book and stationery store, two jewelry and watchmaking establishments, two barber shops and a bath-house, three hotels, four restaurants, two drug stores, one bank, one butcher shop, two saddler shops, three livery stables, two tinshops, one bakery, eleven saloons, one shoemaker shop, three blacksmith and wagon-making shops, one brewery, three newspapers, post and express offices. Lawyers, doctors, surveyors, and others are plentiful.

A large grist-mill, with latest improvements in machinery, is located in the eastern part of the town, on the banks of the Kern Island Canal, by the waters of which it is driven. It has a planing and grooving attachment connected and driven by the same power, with a lumber-yard attached.

In 1874, the Board of Trustees granted, for the term of ten years, to A. R. Jackson and C. D. Jackson, the exclusive right of way through the streets and alleys of Bakersfield, for street railroads, to connect with the Southern Pacific Railroad at such points as may be acceptable. This road was never constructed, and a new charter was lately granted to a new company, for that purpose; and, no doubt, before long such a road will be constructed, as it is much needed.

CONTEST OVER TOWN SITE.

Thomas Baker (since dead), from whom the town derived its name, made an application for the swamp land in section 30, township 29, south range 28 east, Mount Diablo base and meridian. In the following year a certificate of purchase was issued to him. Colonel Baker had occupied the section for some years before, claiming title to it under a grant from the State, which was finally decided not to include the lands. It was then he made application to the State to purchase it. A town was laid out in the same year, and in the year following a lithograph map of the town was made and filed with the County Recorder. A block of the town was obtained of the grantees of Colonel Baker by the county, and the new Court House was erected upon it.

On the 14th day of December, 1870, W. J. Yoakum made application for the *whole* of section 30, as swamp land. After some months, his application was sent to the Surveyor-General's office, and returned without his approval, as the whole of the section was not swamp land. Yoakum had lived much of his time in the town, bought property of Colonel Baker and improved it, and never apparently thought of his claim afterward till late in the year 1875. About that time the Supreme Court decided in the case of Edwards *vs.* Estell, that a County Surveyor could not make an application in his own name. As Baker was County Surveyor at the time his application was made, under that decision it was void. The County Judge of the county then learned, from the former County Surveyor, of the Yoakum application, and he immediately proceeded to obtain it, and then dividing the interest with the District Attorney and one of the wealthy land-owners residing in San Francisco, inaugurated an attack upon the occupants.

The original survey could not be found, and to take up and perfect a claim which had so little validity, after a series of years, was no small task. The former Surveyor was induced to draw some red lines around the black ones, in a supposed copy of the survey, which might pass for a correction. It was forwarded to the late Surveyor-General, and by him sent to the District Court of Kern County for adjustment. One great difficulty in maintaining it was the fact that the law in existence at the time the Yoakum application was made, contained in effect these words: "No application for swamp and overflowed lands in this State shall be made within five miles of the cities of Oakland and San Francisco, and within two miles of any town or village."

As the town was in existence in 1868, and had a map filed prior to the application of Yoakum, the plain supposition was that it was reserved from sale by the State. All one day was spent by the prosecution trying to make out that it was not a town or village. The proof on the part of the defense was that it contained seventeen houses, including two stores, a blacksmith shop, a hotel and boarding-house, a livery stable, a feed stable, a printing office, with a weekly paper, and a population of from 200 to 300 persons.

The plaintiffs brought one of the editors of the *Gazette*, at Sumner, to disprove the defendant's statements. He testified that it was no town at all—that it had about twenty-five people living in very small houses; that he was editor of the *Courier* in October, 1870, and the paper had been in existence since the year before, under the management of A. D. Jones; that the paper paid nothing—there was nobody to advertise, etc. He made it out a most contemptible and insignificant place.

On consideration, the editor was gradually compelled to admit the existence of the several buildings which had been mentioned, the stores, etc., the post-office, the mail line, telegraph and express offices, and finally was asked if, when he first commenced the publication of the *Courier* in 1870, he remembered giving a long description of the town, the number of its inhabitants, its prominent buildings, and the fact of its being the center of trade for a large and prosperous country, and he said he–be–lieved–he–did.

The decision of the lower court was adverse to the settlers of the town, and caused some commotion. A later decision of the Supreme Court gives them a clear title to their town property, and defeated the thieving scheme of a few land speculators who had planned to deprive the people of their homes, as unfortunately too many of their class have been enabled to do on this coast in times past.

The first house erected in Bakersfield for dwelling purposes was a small building used by the employes of the first and only store in the place. It was afterwards rented to W. S. Adams who used it as a boarding-house. It was then used for five years as a printing office, and in 1881 was demolished to make room for a commodious dwelling. C. Baker, one of the pioneers of Bakersfield, erected the first brick building in that town fronting Second Street, in 1875.

The village of Bakersfield was incorporated under the general act, and so continued for a while and until it was disincorporated. It is 231 miles from Stockton. It is located in a grove of large cottonwood, sycamore, and willow trees, on the sandy bottom adjacent to Kern River, one mile from railroad at Sumner.

The town does a very large business, and is one of the most active places in the valley. Droughts do not seriously affect its prosperity.

The Episcopal Church was organized in 1878. At a meeting held at the residence of S. A. Burnap, Esq., for the purpose of forming an Episcopal Church Society, George E. Otis was chosen Chairman, and J. T. Anderson, Secretary.

The Catholic church was erected by Mr. Montgomery, in 1881.

The M. E. Church also has religious services every Sunday; a Sabbath-school is also maintained.

There are various secret and benevolent societies; such as Workmen, Legion of Honor, Odd Fellows, Knights of Pythias, Good Templars, Masons, etc.

NEWSPAPERS OF BAKERSFIELD.

The *Kern County Californian* is published every Saturday, by A. C. Maude. It is now in it fourth volume. Its editorials are able. Its local county news is always very large. The influence and enterprise of the *Californian* has added much to the prosperity of Kern County. It has handled all current subjects in an able manner. It has done much by reviews of the various resources of the counties to attract attention to the advantages it possesses. Mr. Maude was for some time engaged in real estate, and other business in Bakersfield, and is therefore the more fully posted on its resources. He is also United States Commissioner, and Notary Public.

The *Kern County Gazette* is published by George W. Wear, whose residence forms one of the views of the pretty homes of Bakersfield. George W. Wear is a native of Carroll County, Mississippi. A self-made man, and an energetic, industrious printer, who thoroughly understands his business. He grew to manhood in the South, and at the breaking out of the war remained with his native soil. The *Gazette* is a nine-column paper, is attractive and ably conducted. Mr. Wear has just put a new Cottrell cylinder press and steam power into his office. He has lately purchased the material of the *Record*, and has thus largely increased his business and circulation.

The *Kern Weekly Record* had reached its third volume when it became consolidated with the *Gazette*. It was established by John H. Lee.

The *Temperance Banner* is also published in Bakersfield. The first number was issued in April, 1883, Cora Petty, Editress, and in its salutatory it says: "We are confident that there is a good field here for temperance work, but it is yet a matter of conjecture if the field will yield a support for an advocate of the cause. A town of the population of Bakersfield, that can make a showing of probably twenty-five saloons, certainly is a proper field for the temperance worker."

BUSINESS HOUSES OF BAKERSFIELD.

H. H. FISH is proprietor of the Union Livery and Sale Stables, which he has had illustrated for this work. These large stables are situated on Tenth Street. It is the depot of the Sumner and Bakersfield 'Bus Co. The building has recently been enlarged and otherwise improved and ventilated. He has one of the largest and finest stocks in California, south of San Francisco, of buggies and carriages, with double teams, for hire on reasonable terms; also good saddle horses and mules, which will be hired to go to any part of the country at moderate rates.

J. NIEDERAUR has a large building on the main street, which is occupied by him as a furniture dealer and undertaker. A glance at the illustration of this business place will give some idea of its extent. He keeps a complete assortment of furniture and bedding, wall paper, looking-glasses, picture frames, brackets, upholstery, carpets, etc. Jobbing and repairing done in good style and at short notice. Metallic caskets, wood caskets, and coffins of all sizes and descriptions always on hand. A hearse, second to none in southern California, is always kept in readiness.

THE KERN VALLEY BANK, at Bakersfield, has a capital of $53,000. It furnishes exchanges on all Eastern and European cities. It loans on approved securities; pays highest price for county scrip; makes collections; and allows interest on term deposits. Sol. Jewett, President; Charles W. Fore, Cashier.

J. S. DRURY is a wholesale and retail dealer in drugs and medicines, paints, oils, varnishes, etc.

BORGWARDT & MCCORD are wholesale and retail dealers in fresh and salted meats, hams, bacon, lard, etc. All kinds of German sausages constantly on hand.

PAUL GALTES is a wholesale and retail dealer in groceries and provisions, dry goods, clothing, fancy goods, boots, shoes, hats, fine wines and liquors, tobacco and cigars, hardware, tinware, woodenware, etc. Always on hand the best assortment in the ladies' department.

E. G. MILLER is proprietor of the City Brewery. He manufactures and keeps on hand superior and pure lager beer, inferior to none in the State. His wines, liquors and cigars are all of the best quality. Attached to the brewery is a first-class bowling alley, fitted up with all the conveniences, and located in a shady, cool place; also a nice, well-arranged shooting gallery, for the amusement of guests. He has been at great expense to arrange the brewery and make it a first-class establishment.

Water Supply of Kern County.

THE first and most important consideration in a section where agricultural success is wholly dependent upon irrigation, as in Kern County, is that of the water supply, for upon its permanence and volume depend the wealth and prosperity of the community. Fortunately Kern River, which is the sole source of supply for all that portion of the San Joaquin Valley south of Tulare Lake, is an unnavigable stream of large volume, whose waters can be entirely diverted without injury to any public interest, and whose discharge, though variable, is unfailing. The river heads among the loftiest peaks of the Sierra Nevada, whose ice fields and beds of snow only yield to the heat of midsummer, furnishing a great volume of water long after the winter rains on the lower mountains have drained away. The rains of winter and the melting snows of summer thus maintain the full flow of the stream through the first seven months of the year, the season of greatest demand.

PHYSICAL FEATURES OF KERN RIVER.

From the longest fork of the river to the mouth of the cañon, the distance is about 115 miles, in which it falls 10,000 to 12,000 feet, in a series of cascades, through wild, rocky cañons, alternating with short, level reaches in park-like valleys. From the point where it leaves the mountains it flows for eighteen miles between high, gravelly bluffs, entering the plains a short distance above the Southern Pacific Railroad Bridge, the latter fourteen miles having an average slope of eight feet per mile. It follows a southwesterly course from the railroad bridge toward Buena Vista Lake, flowing in a shallow bed of coarse sand, 300 to 800 feet wide, with an average inclination of six feet per mile, to Buena Vista Slough, where its waters part, a portion flowing south, into Buena Vista Lake, when unobstructed, and the remainder seeking an outlet northward, in Tulare Lake, through fifty miles of swamp land.

The elevation of the river at the railroad bridge is 408 feet above the mean tide *datum plane* established by the State Engineers Department, while the two lakes, Kern and Buena Vista, which occupy the lowest and southernmost portion of the valley, have an elevation, when full, of about 290 feet.

FAVORABLE FOR IRRIGATION.

Kern River has a slope through the valley of from six to eight feet per mile, and lies in a shallow sandy bed, with banks of sandy soil three to six feet high. These favorable conditions enable water to be taken from it at almost any point with a minimum of cost. No permanent dams or expensive headworks are necessary; a simple wing-dam of sand and brush, running out into the channel at an acute angle up the stream, serves every purpose of diverting water into the canals. These wing-dams are liable to be swept away with every freshet, but as they are inexpensive, no serious loss is entailed.

But one dam—that of the Kern Island Canal—was ever constructed across the river, and this has been finally abandoned, on account of the heavy cost of maintaining it in repair. It was built of brush mattresses, staked and weighted down with gravel. It cost, originally, $7,000, and subsequent repairs for three years cost nearly $12,000. It rested upon a bed of quicksand, which was constantly being undermined, and every freshet rent a hole through the body of the dam. When the dam was abandoned, the canal was simply extended about half a mile further up stream, and a wing-dam of sand thrown out, diverting all the water required.

The ease with which water can be diverted from Kern River accounts for the great number of canals and ditches which have been taken from it at all points, there being no less than thirty-two, large and small. It would be better if there were fewer, as the division of water into so many channels gives rise to a great loss in the river in reaching the lower ones—a much greater loss than would occur if all the water were diverted into two main canals, where it emerges from the foothills, with regularly laid out distributaries running therefrom to all the irrigated lands. There are specified times for irrigation, divided into periods depending upon the kind of crop.

After July no general irrigation is practiced except for alfalfa, late potatoes, and vegetables, although water is run in all the canals for stock purposes. Alfalfa is irrigated at any time during the year from January to October, and while there is much of it that is never irrigated, receiving moisture from the permanent stratum of surface water which in places its roots find at a depth of five to six feet, on other soils less favorable to its growth, it may be necessary to water it every five to six weeks from the latter part of January to the first of October. The mean between these extremes in alfalfa lands is a compact alluvial soil, which retains moisture a long time and requires not more than two or three irrigations in the whole season.

We are satisfied that many attempts which have been made to grow alfalfa, and which proved failures, were attributable to the selection of improper soil. Thin soils and compact clay soils should be avoided, for in neither will it succeed to satisfaction. It will succeed, however, in a light soil which has a permeable subsoil consisting of loam, or sand or gravel, into which its roots can penetrate.

VARIOUS WAYS OF IRRIGATION.

Sub-surface irrigation, or the wetting of the ground by under-ground percolation, is practiced to a considerable extent, but the area over which the system is practicable is comparatively limited, and is confined to a few thousand acres on Kern Island. For this system the old channels, or blind sloughs, that ramify through the country, are used. These are, generally, but shallow troughs, with flat sloping sides. Temporary dams are thrown across them, and they are filled with water from the nearest ditch. Percolation from them extends from 500 to 1,500 feet laterally. Where there are no natural channels convenient the fields are surrounded by ditches, which are kept full of standing water as long as may be necessary to wet the inclosed field. A great deal of land in various portions of Kern Island is thus sub-irrigated by the natural percolation from the canals.

EFFECT OF IRRIGATION ON SOIL.

It is a noticeable fact that upon all the sandy soils, at least, which form the principal area of the lands under cultivation, the effect of years of irrigation has been a marked increase in their fertility and an apparent change in their composition. Water and cultivation disintegrate the coarser particles of the soil, and the fertilizing elements contained become dissolved and prepared for plant growth. In filtering through the porous soil all the sediment and fertilizing matter contained by the water is detained and acts as a perpetual restorative. Rich fields, producing large annual crops, are to be seen in Kern Island, that were barren wastes of pure sand before irrigation reclaimed and fertilized them. A common method of treating the sandy hillocks and bare spots that occur at intervals, is to corral sheep on them for a few weeks at a time. We have no data for establishing the rate of increase in the productive capacity of the land, but the general opinion seems to be that the average yield is greater, all other conditions being equal, as irrigation progresses.

EFFECT OF IRRIGATION ON CLIMATE.

The change for the better in the climate of the country, since the general introduction of irrigation, has been as marked as the improvement in the soil. Old sloughs containing stagnant water have been purified by the introduction of fresh running water through them. Jungles of miasma-breeding willows have been cleared, swamps drained and dried out, and much decaying vegetation destroyed. Malarious fevers were formerly very prevalent, but have been much abated by these measures. How much the change of climate can be attributed to the influence of irrigation, if any, cannot be conjectured; but irrigation has certainly had no deleterious effects, or else they have been greatly overbalanced by the sanitary results of drainage and clearing.

EXTENT OF IRRIGATION.

The total area of land irrigated in Kern Valley from Kern River, in 1879, was 38,800 acres, of which about one-third (according to an approximate estimate) was devoted to alfalfa, and the remainder to cereals—chiefly wheat and barley, Indian corn, potatoes, and miscellaneous products. This comprises almost the whole of the lands under cultivation in the valley, as but few acres were in cultivation which were not irrigated directly by surface flooding, or indirectly by percolation from artificial channels or natural water-courses used as irrigating canals. Of this area, probably one-fifth had never been irrigated prior to 1879.

FIRST CANALS CONSTRUCTED.

Prior to 1873, comparatively little land was irrigated. The only canals existing at the beginning of that year were (1), the Kern Island, completed only to Bakersfield, and irrigating a limited amount of land around the town; (2), the ditches taking water from the Old South Fork, irrigating a few hundred acres north of Bakersfield and in the vicinity of the old settlement of Panama; (3), the Castro Ditch; (4), the Stine, partially completed by farmers who had formerly taken water directly from Old River, at different points; (5), the Buena Vista, supplying what was known as the Barnes Settlement, by means of an old natural slough, which has since been abandoned for an artificial channel, cut on higher ground, nearly parallel to the slough; (6), and the James Canal, then a much smaller channel than it now is. The total amount irrigated by these probably did not exceed 5,000 acres. No water was diverted on the north side of the river.

LIST OF CANALS.

At present there are some thirty-two ditches taking water from Kern River. The following table gives the names of the canals, acres irrigated, etc., in the year 1880:—

TABLE.

NAME OF CANAL.	Total number of acres irrigated........	Total amount of water for irrigation, Jan'y to July, inclusive........	Average discharge per second in cubic feet........	Average depth to which water taken from river would cover land irrigated if all applied........
North Side:—				
Beardsley...........	450	155,000,000	8.4	7.9
Calloway...........	3,000	1,760,000,000	96.0	13.47
McCord..........	765	320,000,000	17.5	9.6
McCaffrey..........	280	177,000,000	9.7	14.5
Emery............	20	60,000,000	3.2	68.8
Jones & Tuckey.....	55	68,000,000	3.7	28.4
Wible............	260	131,000,000	7.2	14.2
Railroad...........		31,000,000	1.7	
Pioneer............	3,450	877,000,000	47.8	5.9
James & Dixon.....	....	54,000,000	3.0	....
Johnson............	150	94,500,000	5.2	14.46
Dixon & Joice......	....	45,000,000	2.4	....
South Side:—				
Kern Island........	9,860	1,910,000,000	104.2	4.4
Farmers'.........	5,344	840,000,000	45.8	5.85
Old South Fork.....		521,000,000	28.4	
Spanish, or Castro...	300	86,000,000	4.7	6.6
Stine..............	7,245	1,761,000,000	96.1	5.6
Baker & Noble......	1,140	200,000,000	10.9	4.0
Gates..............	325	59,000,000	3.2	4.1
Buena Vista........	1,920	418,500,000	22.9	5.0
James............	3,400	556,000,000	30.3	3.75
Plunkett...........				
Meacham..........	785	51,000,000	2.8	1.5
Wilson...........	52	9,000,000	0.5	4.0
Total............	38,801	10,184,000,000	555.6	......

Biographies of Citizens.

Solomon Jewett, of Bakersfield, Kern County, was born in Weybridge, Vermont, in 1835, where he lived until of age, on his parents' farm, having the principal charge of it after the age of sixteen years.

His father and grandfather were large sheep owners, for that State, owning as many as 6,000 at one time. Our subject took early to the business, purchasing his first sheep at the age of six years, paying $3.00 therefor, which increased, and with trading gave him a start of $950 at the age of twenty-one years, when he left for Nebraska where he stayed two years.

Then with his brother started for Pike's Peak during the excitement of 1859. Arriving at Fort Kearney and finding the news of Pike's Peak unfavorable, they came together to California, landing at Placerville September, 1859. They went from there to Murderers Bar, and worked in the river diggings one month for wages, and then tried placer mining for themselves, but with poor success.

In 1860, they received 105 French Merino Bucks from the East by steamer, which our subject sold at an average of $316 each.

In the fall of 1860 he came to Kern County, took 3,300 ewes on shares, and purchased 2,000 in company with Thomas Bull, a banker of San Francisco, for $6.00 a head. The first clip brought $154 over and above the expense of shearing and delivering in San Francisco.

The next year sheep dropped from $6.00 to $1.00 per head. The years 1863–64 were dry years, and during that time Mr. Jewett devoted his whole time to the sheep, losing but few. In 1864 sheep fell to 50 cents per head; 1865 was a good year, and Mr. Jewett drove 3,000 wethers to San Francisco, realizing $3.20 per head, which cleared him from debt, and left himself and brother with 8,000 sheep, which was afterwards increased to 20,000.

In 1865 in company with Messrs. Livermore and Chester, he purchased the "Cotton Ranch," and cleared, made irrigating ditches, and put in 133 acres of cotton, one of three of the first crops raised in California.

Seeing the necessity of providing his sheep with winter feed, he commenced to raise alfalfa hay, and was one of the first to advocate the producing of it, and has at the present time about 2,000 acres sufficient to cut 12,000 tons of hay in a season.

Mr. Jewett has always been one of the foremost breeders of fine sheep in the State, having imported several hundred from the East. His sales amount to thousands of dollars yearly; selling them all over California, and sending them into Oregon, Nevada, Montana, Utah, Colorada, and Texas.

In company with Livermore & Chester, he put up the first frame building in Bakersfield. He has been identified with the growth and prosperity of Bakersfield from the start, and aids in promoting every enterprise for the development of town and county.

In 1875 he started the Kern Valley Bank, of which he is now President. Mr. Jewett lives one mile from Bakersfield on his home farm, and has a wife and four children.

James C. Crocker, the subject of this notice, was born in Oneida County, New York, on the 20th day of January, 1830, but before arriving at his majority, he went to Pulaski, Oswego County, where he engaged in the occupation of butchering, which he followed with average success up to the time when the California gold excitement broke out.

Being of a sanguine temperament, and full of the spirit of adventure, he determined to try his fortune in the El Dorado of promise. He left New York by steamer in June, 1850, coming by way of Panama, where he was detained some time in consequence of the riots that broke out while he was there, and he did not arrive in San Francisco until August of the same year, having been nine months on his way from New York.

He immediately went to Greenwood Valley, in El Dorado County, where he engaged in mining for a limited time with average success, but observing that there was a good prospect for a butcher, he determined to try his hand at his old trade again, which he did during several years, with varied success. Subsequently, about the year 1860, he moved to the county of San Joaquin, where he became acquainted with Miss Mary Smith, his present amiable wife, whom he married in the year 1862. They have now living five children, two boys, Edwin and Frederick, and three girls, Clara, Nellie, and Bertha.

After his marriage he resided in San Joaquin County, up to the year 1868, when the great excitement in regard to taking up farming lands was at its height, when the plains on the west side were being dotted with houses and farms as far up as Hill's Ferry, and as bad or worse for stock owners on the east side, where the settlers were killing hundreds of cattle for trespassing on their fenceless crops. The outlook was gloomy, green fields and pastures now seemed to be the best solution of the situation. So Crocker concluded very promptly to make one more move, and this time to Kern County, where he engaged in the business of stock-raising more vigorously than ever before, and with gratifying success up to the year 1877 (the dry year we call it here), when he lost a great many cattle on account of the scarcity of grass.

From the experience of this year he learned that the native grasses of this dry country are not a reliable dependence for a large amount of stock, so he commenced buying land in the farming and irrigating district, about eight miles south of Bakersfield, and nine miles from Sumner the nearest depot, and now he has 1,760 acres under a substantial board fence, with miles of subdivision fences of the same sort; 1,350 acres of alfalfa grass, which is indispensable for stock, a good residence, with all other buildings necessary and convenient to conduct the business. The soil is mostly of the best quality, being alluvial deposit, and produces alfalfa most abundantly, averaging two tons of hay per acre the first cutting, and nearly as much at the second cutting, and green pasture ever afterwards; cultivates no other crop. Has an orchard of several hundred trees, large and small; only for family use. Has about 1,250 head of stock cattle; about 155 head of horses and mares, including spring colts; about 800 head of hogs, and 600 sheep.

Blessed with a good constitution, indomitable pluck and perseverance, and a clear head for business, the subject of this notice has succeeded in placing himself on a solid business basis. As a man he is true to his friends, hospitable to the stranger, and just to all men. In Kern County he is esteemed the *model* citizen.

A. T. LIGHTNER, whose portrait appears in this work, is one of the oldest native Californians in the State, having been born in San Bernardino County, January 1, 1850. He was the youngest of a family of nine children. His parents moved into and resided in Santa Clara County until 1857, when they moved into Kern County, which was at that time a part of Tulare County.

His early years—up to the age of fifteen—were spent in attending school in Santa Clara County. Between the years 1866 and 1876 he was engaged in stock-raising—principally cattle and horses.

In March, 1876, he was engaged as Office Deputy in the Sheriff's office, serving for two years, during the term of M. P. Wells. In September, 1879, he was elected to the office of County Clerk, and also served as Recorder of Kern County. He was re-elected to the same office in November, 1882, and is still serving in that capacity.

WILLIAM TYLER, the present County Auditor, was born in Napierville, Canada East, June 20, 1836. He came to San Francisco, May 17, 1859. He came to this county and engaged in mining in 1865. Being present at the birth of the county, he remembers the incidents attending that event. His handwriting appears upon the early records, although he was not an officer until he was elected to his present position, to which his many qualifications admirably fit him to faithfully discharge.

ALEXANDER B. MACPHERSON, the present able Superintendent of Schools of Kern County, is a native of Glasgow, Scotland, where he was born March 20, 1839. He moved to the Highlands of Scotland in 1840, where his father, Alex. Macpherson, engaged in milling. He afterwards migrated to Canada in a sailing vessel, consuming fifty-three days.

The subject of our sketch left New York for California, by way of Panama, and reached San Francisco May 7, 1864, and engaged as a laborer on a farm near Capland. From June to October, 1864, he was engaged in book-keeping in San Francisco, and in Sacramento at other business.

He came to Kern County in 1867, and engaged in contracting for the Joe Walker Mining Company. He was elected Superintendent of Schools in 1882.

He married Miss Mary Jane Freeman, in 1876, who was a native of Texas. The names of their children are: Alexander Ross, Eucebie Valeria, and Veronica Macpherson.

JACOB NIEDERAUR.—The subject of this sketch was born in Bavaria, in the year 1841, and is a son of Diedrick and Barbara Niederaur. He came to America with his parents and brothers (of whom he has three) and sister, in 1853, and settled with them in Bryan, Ohio, where his parents resided almost continuously the balance of their lives. His mother died in 1868, and his father in 1879, the latter being seventy-nine years of age when he died. Mr. Diedrick Niederaur was a cabinetmaker, and taught all four of his sons the trade. Two of them still remain in Bryan; are sole proprietors of the large business built up by their father and themselves, and are well-to-do, thriving men. No doubt Jacob might have been one of the firm, had he been content to remain at home and work at the bench; but his was a nature which craved adventure, and in pursuit of it he, in 1861, enlisted for three years as a musician in the Thirty-eighth Ohio Regiment, and served under General Thomas. He was discharged after serving less than two years, by Act of Congress, mustering out of service the military bands. He was engaged in the battles of Mill Springs, Pittsburg Landing, Shiloah, and other minor affrays. After his discharge from the army, he returned home; but soon tiring of the old haunts, he started, in the fall of 1863, for California. He spent six years in the mines of Montana, Idaho, and Nevada; and, after a checkered career, in which he neither succeeded in making a fortune, nor failed at all times to satisfy the cravings of hunger, he left White Pine for Kern County, in 1869, and arrived in Bakersfield, in December of the same year. His earthly possessions at this time consisted of a pack and saddle horse and a camping outfit. Having now come to the conclusion that, as a money-making business, mining was too uncertain, he practically abandoned it, and began work at the bench as a carpenter, at which he labored steadily for four years. In the meantime, with his partner, Dan Hughes, who had shared the ups and downs of mining life with him for the last five years in which he followed it, they pre-empted a half-section of land, Dan giving his time to the tilling and improving of the ranch, while Niederaur furnished the capital. Finding that the ranch was eating up all his hard-earned funds, without giving any adequate return, the partners concluded they were not cut out for farmers, and abandoned the business, after first proving upon their land. They then dissolved partnership, Mr. Niederaur retaining a lot and small house which they had been enabled to purchase, and Mr. Hughes taking the stock of the farm. In 1873 Mr. Niederaur decided to open a furniture and undertaking establishment in Bakersfield. His funds were small, and he started in a small way; but four months served to convince him that at last he had struck the chord of success. About this time he found a purchaser for his ranch, and invested the proceeds of the sale in his business. From that time to the present, his course has been gradually upward. The increase of business compelled him from time to time to extend the dimensions of his establishment, until finally the small lot became too small for the business, and he was forced to purchase larger accommodations, which he did and secured a more desirable location in the center of town. The dimensions of the store at present are 66x115, and is divided into four apartments, one of which is the work shop; another is devoted to heavy furniture, bedroom sets, tables, mattresses, etc. Another is used for the smaller pieces of furniture, wall-paper, picture frames, crockery and glassware, carpets, paints, oils, etc. And the fourth apartment is used exclusively for displaying wooden and metallic coffins, and caskets and fixtures. Mr. Niederaur also owns a fine hearse, said to be the most costly one in southern California. Aside from the apartments above mentioned, he also owns a large building directly west and adjoining those now used by him, which he rents from month to month, but which was purchased in anticipation of still greater increase of business in the future. Altogether it is a fine business and a worthy monument to pluck and perseverance. Mr. Niederaur was married in 1869 to Miss Lucy Williams, a native of Ohio, a lady who has proved a fitting companion, and to whose sound judgment and common-sense ideas much of his success is due. They have no children.

George Oakley Kinne is a native of Seneca County, New York, where he was born July 18, 1819, and his early life was spent upon a farm. He came to California in 1851, from New York City overland, reaching Sacramento August 25th, after an uneventful trip. He engaged in hotel-keeping at Sacramento. He also engaged in mining in 1852, in Placer County near Coloma, with very good success. In the winter of 1853 he was farming in Napa Valley.

He came to Kern County in 1875 and engaged in farming and raising sheep. His farm is 640 acres seventeen miles from Bakersfield. The chief production is growing alfalfa, and the average yield per acre is five tons. He has a fruit orchard which does well, consisting of trees of cherries, apricots, peaches, apples, pears, plums, nectarines, quinces, etc., of various kinds.

In 1853 he returned to New York. Remained there three or four months and then returned and settled upon a farm in Yolo County. He sold out in Yolo County in 1859 and went back to New York. Remained there about one month, came back to California and went from California to Arizona on a mining expedition. He remained there through the summer and returned to San Francisco. The next year he sailed up to Victoria, thence to the British Possessions; from there he returned in the fall to San Francisco, and from there went to the Suisun Valley and bought sheep. He remained there for two years. In 1867 he went to Colusa County, and in 1868 returned to Yolo County, rented a farm, and went into the sheep business. In 1869 he left Yolo County and came to Fresno County, remaining there for six years engaged in raising sheep.

These movements show that, like most others who try the climate of California for a while, they eventually have to return for a permanent home.

Alexis Godey is one of the guides and hunters who aided Fremont in his exploring expeditions and contributed in no small degree to their success. Few are aware that Godey lives in Kern County. A few years after the last expedition in which his courage and patient endurance was the means of saving the lives of many of his companions, he settled in this county and has since made it his home.

He was near the site of the village of Bakersfield in the spring of 1844, with the second expedition. Fremont was then moving southward along the base of the Sierras, with a view of finding a pass to the eastward. He entered the low ground where the bridge now is and was then dry land, the river turning around the base of the bluff and flowing southward to Kern Lake. They then entered the Tehachepi Pass, as heretofore described.

E. H. Dumble is one of the most enterprising and prosperous farmers on the north side of the river, who, with a wise foresight, commenced planting vines and fruit trees a few years ago, the area of which he is constantly extending. He has spent much time and money in experiments with various seeds and plants to test their adaptability to the soil and climate of Kern County. Some years ago he tried the date palm, but we do not know whether this tree has been experimented with to any satisfactory extent in southern California or not, by Mr. Dumble or any one else. It is one of the most valuable trees known, and subserves the greatest variety of useful purposes.

Mr. Dumble's residence is three miles north of Bakersfield. He has a large two-story house, surrounded by wide double verandas which are a great comfort and pleasure in the summer climate of Kern. The fine large trees around the place also add a grateful shade. Surrounding the house are orchards of a variety of fruits. Taken altogether no farm home in Kern County exceeds that of Mr. Dumble's for pleasant surroundings, which are indicative of the home of a thrifty and prosperous farmer.

Elections of Kern County.

FIRST ELECTION IN KERN COUNTY HELD SEPTEMBER 4, 1867.

		VOTES.	MAJORITY.
Assembly	J. C. Brown	363	173
“	A. R. Jackson	190	
Sheriff	R. B. Sagely	299	59
“	W. B. Ross	240	
Dist. Attorney	Thos. Laspeyre	519	519
Treasurer	D. A. Sinclair	321	95
“	W. G. Sanderson	226	
Assessor	Jas. R. Watson	293	62
“	John Falvey	231	
Surveyor	Thos. Baker	331	121
“	John McFarland	210	
Coronor	A. D. Jones	324	106
“	A. Hamilton	218	
Supt. of Schools,	E. W. Dess	320	320
Supervisors 1st District,	D. W. Walser	190	44
“ “ “	W. L. Kennedy	146	
“ 2d “	J. J. Rhymes	76	67
“ “ “	Jas. White	9	
“ 3d “	John W. Brite	64	42
“ “ “	Julius Chester	22	

JUDICIAL ELECTION, OCTOBER 16, 1867.

County Judge	P. T. Colby	241	161
“ “	J. W. Venable	56	
“ “	D. G. Housser	24	
State Supt. of Instruction,	O. P. Fitzgerald	269	148
“ “ “	John Sweet	121	

PRESIDENTIAL ELECTION, NOVEMBER, 1868.

President	Horatio Seymour, D.	422	214
“	U. S. Grant, R	208	
Supervisor 1st District	F. W. Craig	193	34
“ “ “	D. W. Walser	159	

GENERAL ELECTION HELD SEPTEMBER 1. 1869.

Assembly	E. W. Doss	141	35
“	Thos. R. Davidson	106	
“	F. W. Craig	58	
Sheriff	W. H. Coons	293	293
Clerk	Thos. J. Williams	282	282
District Attorney,	Thos. Laspeyre	288	288
Treasurer	D. A. Sinclair	292	292
Assessor	J. R. Watson	289	289
Surveyor	E. E. Calhoun	279	279
Supt. of Schools	J. H. Conwell	287	287
Coronor	H. Hashfield	289	289
Supervisor District No. 2,	C. T. White	84	84

SPECIAL ELECTION FOR SUPERVISOR SEPTEMBER, 1870.

Supervisor District No. 3.	J. M. Brite	32	9
“ “ “ “	U. U. Hudson	22	
“ “ “ “	J. E. Williams	11	

GENERAL ELECTION, SEPTEMBER 6, 1871.

		VOTES.	MAJORITY.
Govorner	H. H. Haight	363	192
“	Newton Booth	171	
Assembly	J. Burkhalter	350	170
“	Tipton Lindsey	180	
Clerk	A. A. Bermurdez	354	181
“	S. P. Merrell	173	
Sheriff	W. H. Coons	332	149
“	V. G. Thompson	183	
District Attorney,	A. C. Lawrence	387	376
Scattering votes		11	
Treasurer	D. A. Sinclair	362	197
“	L. Matties	165	
Assessor	Benj. F. Walker	358	198
“	J. W. Sumner	170	
Supt. of Schools	J. H. Cornwell	333	193
“ “	A. R. Jackson	140	
Coronor	Jacob Asher	323	137
“	A. B. Pendleton	186	
Surveyor	E. E. Calhoun	266	44
“	P. D. Green	222	
Supervisor District No. 1,	F. W. Craig	114	43
“ “ “	J. M. Lewis	71	

JUDICIAL ELECTION, OCTOBER 18, 1871.

Justice Supreme Court,	S. S. Wright	271	101
“ “ “	A. L. Rhodes	170	
County Judge	A. T. Colby	231	95
“ “	L. F. Humiston	136	

GENERAL ELECTION, NOVEMBER 5, 1872.

President,	Horace Greeley, D	285	110
“	U. S. Grant, R	175	
Supervisor District No. 2,	Sol. Jewett	140	50
“ “ “	W. P. Wilkes	90	

GENERAL ELECTION HELD SEPTEMBER 3, 1873.

Senator	Thos. Fowler	323	
“	Tipton Lindsey	383	60
Assembly	E. M. Reading	276	
“	M. Canfield	423	147
Sheriff	W. R. Brown	464	214
“	W. J. Yoakum	250	
Treasurer	D. A. Sinclair	473	126
“	L. S. Rogers	247	
Clerk	A. T. Lightner	337	
“	F. W. Craig	382	45
Assessor	B. F. Walker	359	57
“	A. T. Whitman	302	
“	J. M. McKinsie	50	
District Attorney,	A. B. DuBrutz	171	
“ “	A. C. Lawrence	305	61
“ “	J. W. Freeman	244	
Surveyor	P. A. Stine	350	
“	Walter James	362	12
Supt. of Schools,	J. T. H. Gray	329	
“ “	L. A Beardsley	392	63
Coronor	R. R. Donnell	335	
“	J. P. Miller	378	43
Supervisor 3d District,	John Narboe	88	19
“ “ “	P. D. Green	69	

GENERAL ELECTION HELD SEPTEMBER 1, 1875.

		VOTES.	MAJORITY.
Governor	Wm. Irvin	694	180
“	T. G. Phelps	138	
“	John Bidwell	376	
Assembly	J. A. Patterson	729	277
“	C. W. Clark	452	
Sheriff	M. P. Wells	263	
“	B. F. Walker	175	
“	J. P. Ormby	152	
“	T. A. Stonlenburg	55	
“	J. R. Watson	78	
“	E. B. Prater	130	
“	G. W. Thompson	150	
“	C. Collins	24	
“	A. Mills	22	
“	J. W. Rice	164	
District Attorney,	J. W. Freeman	663	157
“ “	G. V. Smith	506	
Clerk	F. W. Craig	757	337
“	J. Oulton	420	
Treasurer	J. C. Pemberton	631	165
“	W. S. Adams	466	
“	D. A. Sinclair	97	
Assessor	R. R. Donell	439	112
“	W. W. Hudson	327	
“	J. McKensie	274	
“	J. T. R. Gray	160	
Surveyor	W. A. Johnson	610	84
“	W. James	526	
Coroner	H. C. Dimnock	892	716
“	P. D. McClamehan	176	
“	S. M. Meeker	18	
Supt. of Schools	L. A. Beardsley	645	108
“ “	J. H. Berry	537	
Supervisor	J. F. Kerr	269	73
“	O. D. Ormsby	196	
“	J. T. Clark	54	

STATE ELECTION, OCTOBER 20, 1875.

State Supt. Inst'n,	O. P. Fitzgerald	566	95
“ “ “	E. S. Carr	471	
County Judge	P. T. Colby	557	241
“ “	R. Wilkinson	316	
“ “	R. Packard	139	

GENERAL ELECTION, SEPTEMBER 3, 1879.

		VOTES.	MAJORITY.
Governor	Geo. C. Perkin	328	
“	H. J. Glenn	777	449
“	W. S. White	58	
Superior Judge	Theron Reed	482	
“ “	B. Brundage	673	191
Treasurer	G. F. Huniston	441	
“	A. P. Bernard	687	246
Clerk	F. W. Craig	424	
“	A. T. Lightner	614	190
“	C. E. Jewett	97	
“	D. A. Morean	43	
Auditor	Alvin Fay	548	
“	W. P. Wilkes	624	76
Sheriff	A. O. Collins	365	
“	W. R. Bower	690	335
“	M. P. Wells	131	
District Attorney,	V. A. Gregg	359	
“ “	E. E. Calhoun	357	
“ “	G. V. Smith	444	87
Assessor	V. Barker	407	
“	F. E. Harding	639	232
“	J. R. Watson	142	
Surveyor	J. R. Lillebrown	41	
“	W. R. Macmurdo	681	641
Supt. of Schools	Mrs. D. B. Rogers	393	
“ “	F. S. Wallace	527	134
“ “	J. G. Underwood	12	
Coroner	S. A. Burnap	629	165
“	A. A. Mix	464	
“	S. M. Meeker	17	
“	H. S. Backman	46	
Supervisor 1st District,	Andrew Brown	70	70
“ 2d “	S. Davis	5	
“ “ “	P. Rutledge	11	6
“ 3d “	P. O. Hare	171	115
“ “ “	P. P. Keefer	56	
“ “ “	J. M. Brite	34	
“ “ “	G. W. Cameron	47	
“ “ “	Alex. Williams	16	

PRESIDENTIAL ELECTION, NOVEMBER, 1880.

President	J. A. Garfield	463	
“	W. S. Hancock	661	198
Assembly	L. B. Ruggles	438	
“	R. E. Arick	682	244

GENERAL ELECTION, NOVEMBER 7, 1882.

Governor	M. M. Estee	425	
“	Geo. Stoneman	871	446
“	R. H. McDonold	22	
Surveyor	M. R. Macmurdo	1283	1283
Supt. of Schools,	A. B. McPherson	742	184
“ “	F. S. Wallace	558	
Coroner	John F. Maio	709	112
“	L. S. Rogers	597	
Supervisor 1st District,	R. H. Evans	150	36
“ “ “	D. W. Walser	114	
“ 2d “	J. M. McKamy	344	5
“ “ “	A. Forsyth	239	
“ 3d “	L. Crusoe	232	35
“ “ “	P. O. Hare	197	

Schools of Kern County.

From A. B. Macpherson, Superintendent of Schools of Kern County, we learn that the first school within present limits of Kern was taught in 1861 by R. R. Donnell. The present Kern County was at that time a part of Tulare County, and of Los Angeles. The census children numbered 59.

The first Superintendent of Kern was appointed (as was all its officers) at that time. The first Superintendent elect was E. W. Doss. Following are the pioneer teachers of Kern: Rev. Mr. Hayes, W. C. Wiggins, Mr. Tabert, Miss Jewett, —— Ross, Cochran, A. R. Jackson, McCutchen, J. H. Cornwall and A. B. Macpherson. First school house was built in Havilah in 1867, at a cost of $2,000. The only school property in the county at that time. To-day the school property of the county is worth $80,000. There are 1,347 census children, 80 per cent. of which have attended school.

There are 31 schools, employing 36 teachers, at an average salary of $79.00 per month. Following are the names of the various Superintendents of Kern since its organization: Dr. Riley, appointed; E. W. Ross, elected; J. H. Comwall, elected two terms; L. A. Beardsley, elected two terms; E. E. Calhoun, County Auditor, elected one term; T. S. Wallace, elected for three years; A. B. Macpherson, present incumbent.

The following are the names of the school districts: Fairview, Buena Vista, Caliente, Cummings Valley, Fitzgerald, Havliah, Kern Island, Kernville, Lake, Linn's Valley, Old River, Panama, San Emigdio, South Fork, Summit, Sumner, Tehachepi, Walker's Basin, Weldon, Wieker.

The County Board of Education consists of C. Lindsay, J. H. McEwen, A. B. Macpherson, and J. G. Underwood.

Botanical Article.

ADDITIONAL NOTES ON THE BOTANY OF THE COUNTY.

BY J. W. A. W.

Several plants peculiar to the Sierra Nevada, at altitudes from 4,000 to 13,000 feet, are worthy of record among the flora of Tulare County, for their beauty, or their curious forms:—

Clematis Californica.—This pretty species of the Clematis, or Virgin's Bower, is abundant along the western slopes of the Sierra, from altitudes of 4,000 to 6,000 feet. It can be readily recognized by its delicate white fringe-like flowers, followed by its long, feathery, white whorled seeds, dangled in balls. It is a graceful trailing vine, that climbs over the chemissel, chaparral, and other low mountain shrubs.

Calycanthus Occidentalis—Or the California Sweet Shrub—is found along all the mountain streams of the Tulare Sierra, in the cañons and glades, mingled with other thick undergrowth. Its dark purple, many-petaled flowers are much larger than in the "Sweet Shrub" of the Northern and Southern States, and though their odor is aromatic, it lacks the sweet scent of the Eastern species, which is similar to the pine-apple, or to strawberries. At altitudes from 3,000 to 5,000 feet.

Azalea Occidentalis—Or *Rhododentron occidentale*—is found in similar localities to the *calycanthus*. It is one of the most beautiful of the *azaleas*, and has large white tubular flowers.

Philadelphus Californica.—This beautiful syringa of California, with its large white flowers, is said, by Whitney's Botany of California, not to extend south of Merced River, just as the same authority limits the range of our *calycanthus* from the lower Sacramento, north; but later explorations show that their *habitat* extends at least as far south as the mountain streams of Tulare County.

Linum Perenne—Or Wild Flax—is very common along the streams of Mineral King Flat, from 7,000 to 8,000 feet above sea-level, and fifty-five miles by road east of Visalia.

Equisetum Arvente—Or *Boreale*—the common horsetail, or scouring rush, is found in moist mountain meadows.

Fremontia Californica.—This queer shrub, which may be correctly called the Hibiscus Tree, from the form of its flowers and leaves, grows in large quantities near the buck-eye and mountain mahogany, along the Kaweah, Tule River, Kern, and other mountain streams, as well as on their dry slopes.

Veratrum Californicum—Or False Hellebore—with its broad, parallel-veined leaves, and long spikes of many large, white, bell-shaped flowers, is adundant on the swampy lands of the Mineral King District.

Smilacina Amplexicaulis—Or the western Solomon's Seal—abounds in the same region.

Asarum Hartwegi—The Californian Heart Leaf, or Wild Ginger—is found in the same locality, and at lower altitudes. It is easily known by its large, leathery, heart-shaped leaves, strikingly mottled; also by its jug-shaped, purplish flowers, resting on the ground.

Corylus Rostrata—The Hazelnut, or Filbert of California—is plentiful along the higher mountain streams, as is the Californian wild plum *pruntus subcordata*, in altitudes from 4,000 to 5,000 feet.

Lililum Parvum—With orange-colored flowers spotted with black, is found all along the moist slopes of the Mineral King District.

Castilleia Senantha—And *C. Semmoni*, two handsome species of "painted cups," are widely distributed in our Sierras. They are conspicuous for their crimson and orange, plume-like flowers.

Castanopsis Chrysophylla—Or the Western Chinquapin—as a low shrub, grows in large quantities along the upper Kern, in Kern Cañon, at altitudes of 10,000 feet.

Populus Trichocarpus.—The larger poplar, is found near the Fish Lakes, in Kern Cañon, while *populus tremuloides*, the aspen, or mountain poplar, is very abundant along the main Kern and on the slopes of Jenny Lind Cañon.

Dodecatheon Meadia—Or American cowslip—with lilac flowers, covers all the mountain meadows, and thrives through mid-summer and fall, immediately under the snow-line, as the snow-masses melt away.

Bryanthus Breweri—A very handsome species of heather, beautifies all the high marshy lands on mountain ridges, at elevations of 9,000 and 10,000 feet. It is conspicuous for its short trailing stems, six to twelve inches high, covered with pine-like leaves, and surmounted with small, red, wax-like flowers.

Spired Discolor—Var. *dumosa*, is a pretty "bridal wreath," growing in high localities.

Epilobium Obcordatum—This very pretty species of Willow Herb, with its showy flowers of a bright rose-color on stems about six inches long, grows at higher altitudes, on both the western and eastern divides of the Sierra Nevada, than any really attractive flower. It grows in a thick row just under the edge of the huge granite bowlders, on Miner's Peak, Mt. Kaweah, and Mt. Whitney. On the latter it abounds along the trail on the western slope at the foot of the "Devil's Ladder," at altitudes between 12,000, and 13,000 feet.

Primula Suffrutescens is one of the most beautiful of the primroses. Blooming in immense quantities in the coarse granite sand, immediately along the bases of the granite bowlders, its innocent beauty cheers the weary climber as he makes his slow and tortuous way to the top of Miner's Peak and Mt. Kaweah, in altitudes between 11,000 and 12,500 feet. Its large flowers are a rich purple.

Aquilegia Chrysantha, variety *Californica*.—This large and very handsome yellow columbine was first discovered in our Tulare County mountains, in July, 1880, by J. W. A. Wright, who, at the same time, first found in Tulare County, the primrose above described. The first specimens were discovered on the western slope of Miner's Peak, between 11,000 and 12,000 feet above sea level. Others were afterwards found near Timber Gap, at heights of 10,000 feet above the sea. Specimens of it have also been found near Lake Charlotte, on upper King's River. As no descriptions of it were found in any works on the botany of California, he sent specimens of it to Prof. Asa Gray, at Cambridge, Massachusetts. The plant grows from one to two feet high. Both Professor Gray and Professor Watson pronounce it a new variety, with not such distinctive features as to make it a new species. The nearest approach to it they know is the yellow columbine of the southern Rocky Mountains (*A. chrysantha*), hence the name given above. Its flowers are very showy, of a delicate sulphur yellow, sometimes lightly dashed with purple on the under side of the outer petals, and on the spurs. The latter are a full inch in length. The flower when spread measures more than an inch and a half across, and its largest flowers are nearly two inches long from the tips of its numerous stamens to the tips of its five spurs. These elegant flowers are even more beautiful than the red and orange columbines, *A. canadensis* of the Eastern States, and *A. truncata*, so common in the Sierra Nevada. This new columbine is very similar to a species found in the Himalaya Mountains in Asia, *A. glauca*, which grows two feet high, and has pale yellow flowers.

Gentiana Newberryi.—This is the small white and green gentian that blooms on the highest meadows along the upper Kern and at the base of Mt. Whitney. A small blue gentian is abundant in some localities, species uncertain, but it is perhaps *G. simplex*.

Mimulus Douglasii.—This dwarfish "monkey flower," only a few inches high, grows in such profusion on the high sandy table-lands near Loomis Creek, south of Mt. Whitney, as to make large purple patches, the color of its flowers, over their entire surface, in the month of August.

Zauschneria Californica.—This is the hardy plant that forms rich scarlet patches, with its long tubular regular flowers, like the *fuchsias* to which it is closely allied, in clefts along precipices above the trails. It flourishes at heights of 11,000 to 12,000 feet, among rocks otherwise barren.

Sedum Rhodiola, or Stone Crop.—Along ledges of rocks in moist places, as in Whitney Cañon and Jenny Lind Cañon, the blood-red leaves and seed-pods of this plant will attract the attention of mountain travelers. It is a succulent plant, with flesh-like leaves, and is similar to the noted houseleek.

Protococcus Nivalis.—This minute fucoid plant, that can be seen only under a powerful microscope, is the cause of the crimson color of the noted "red snow," which can be found every summer in the vast snow-fields, at altitudes of 11,000 to 12,000 feet, near Mineral, King, and on the extreme headwaters of Kaweah, King's, and Kern Rivers.

To preserve this curious and interesting plant for examination with the microscope, don't attempt to keep it in the snow water. Get a bucket full of the red snow, when you have the good fortune to find it. After melting, let it settle. The red snow plant will form a sediment amounting to a tablespoonful. Pour off the water, dry the sediment, and preserve it in a glass vial. To examine it, place a few moistened grains of it on the object glass of a solar microscope, and this simplest form of a plant will appear as a purple globule, like a small round ruby.

Phoradendron Bolleanum, or *Viscum Bolleanum*, is one of those peculiar vegetable parasites which root on the limbs of forest trees, and live by sapping their strength. This one may be properly called the "pine mistletoe." It is found on the pines in Tulare and Kern Counties, and partakes of the nature of the pine, in its slender form and in the resin that exudes from it.

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